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(54) **PERSONAL MESSAGE APPARATUSES FOR MEN AND METHODS OF USE**

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A61F 5/41 (2006.01)

(52) **U.S. Cl.**

CPC **A61H 19/32** (2013.01); **A61F 5/41** (2013.01); **A61F 2005/411** (2013.01); **A61H 2201/0107** (2013.01); **A61H 2201/0192** (2013.01); **A61H 2201/1207** (2013.01); **A61H 2201/1692** (2013.01); **A61H 2201/5079** (2013.01)

(58) **Field of Classification Search**

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See application file for complete search history.

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Primary Examiner — Samchuan C Yao

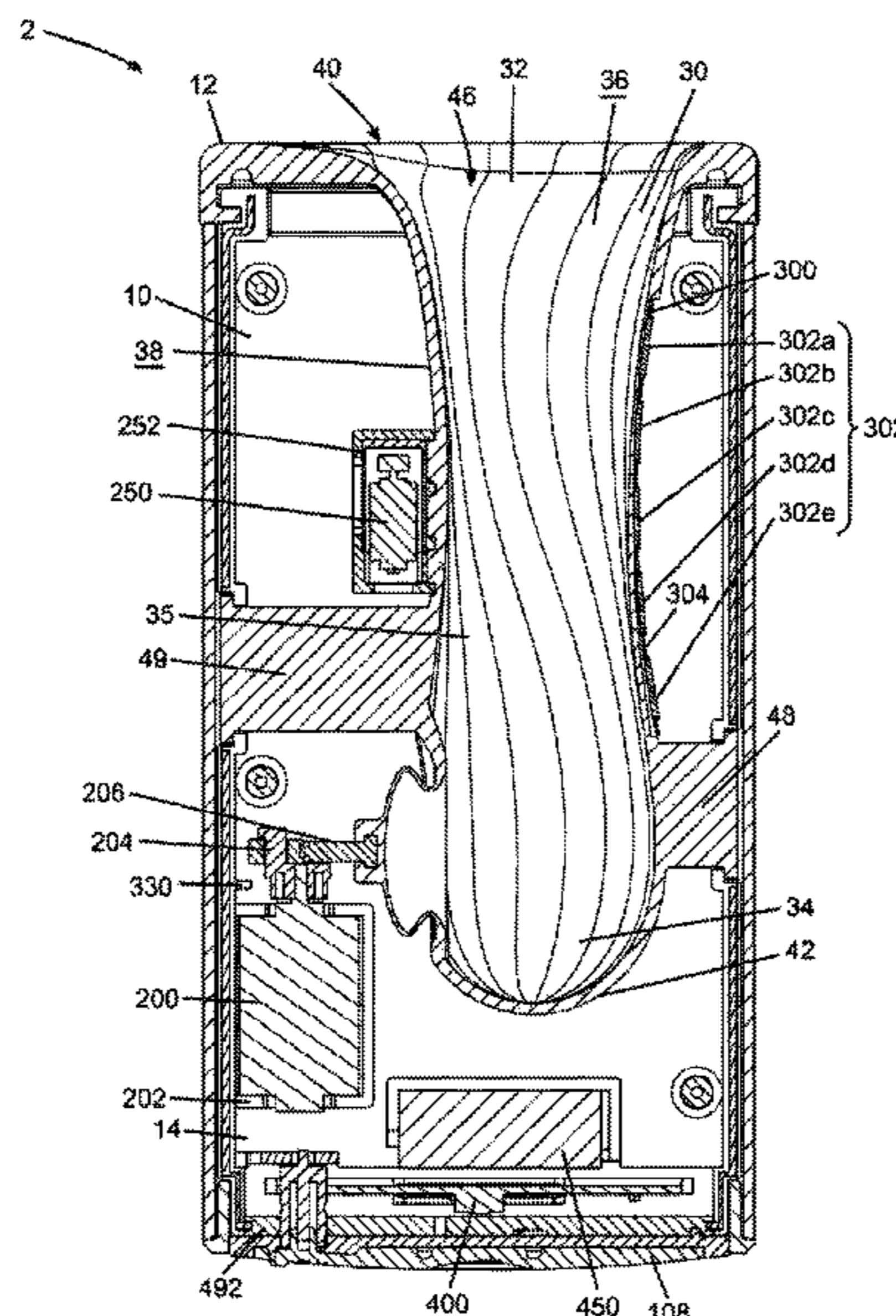
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(57) **ABSTRACT**

An example personal message apparatus for men includes a main body having a sheath, a shell disposed adjacent the main body, a first motor, a second motor, a first sensor, a second sensor, a third sensor, a battery, and a controller. The personal message apparatus is configured to collect data based on a user's use of the apparatus and transmit said data to a second device, such as a mobile phone, for collection and analysis.

16 Claims, 25 Drawing Sheets



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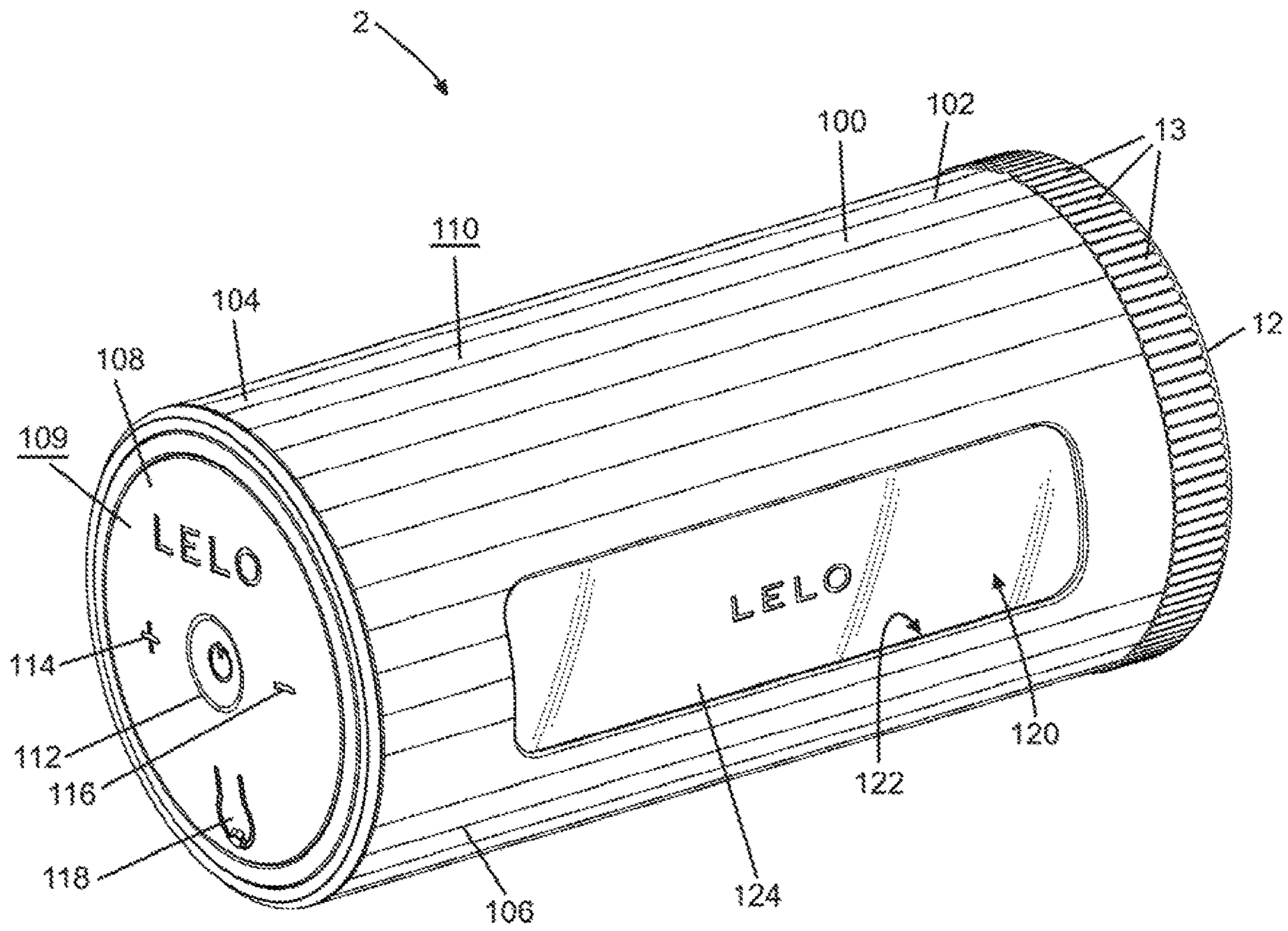


FIG. 1

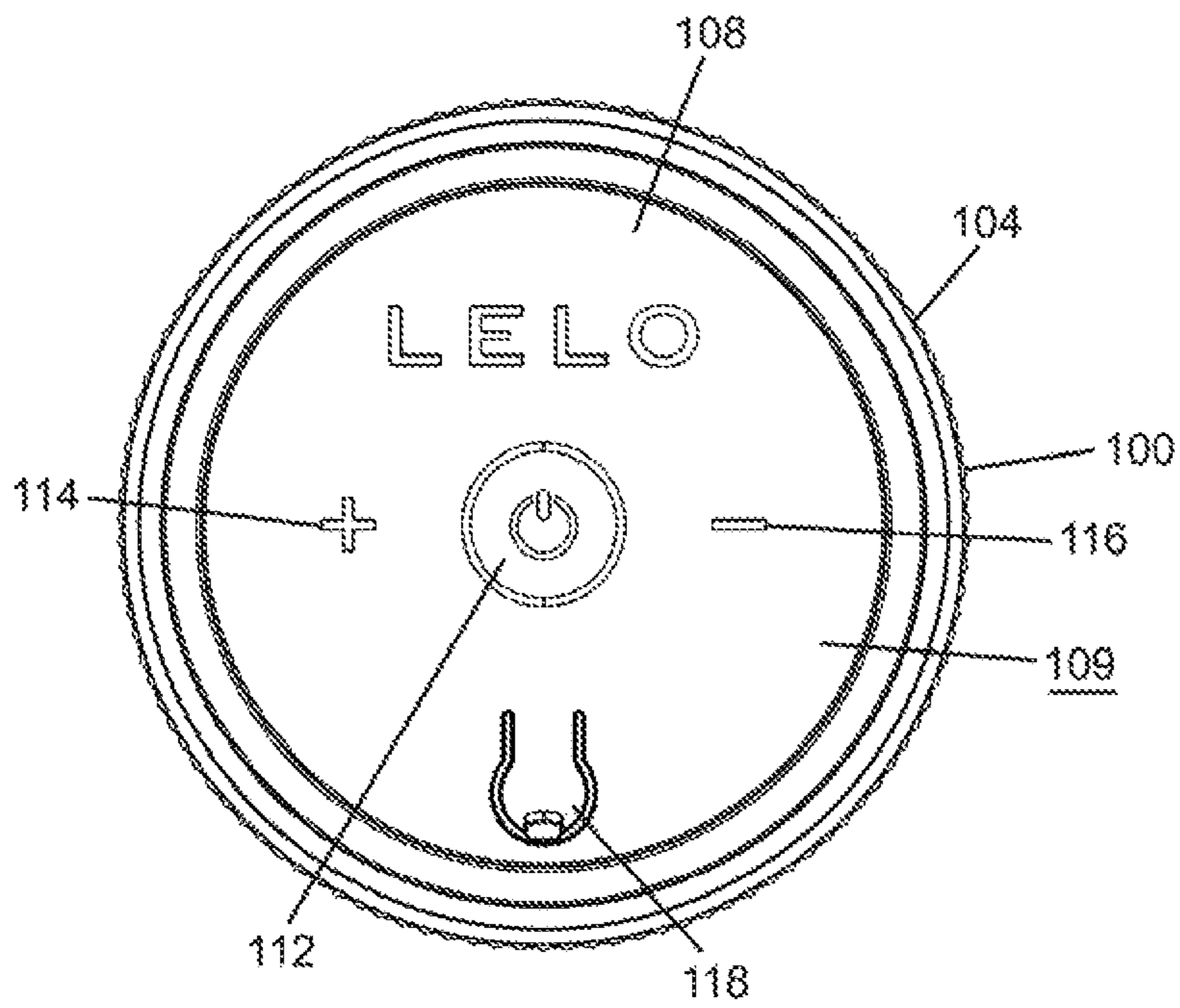


FIG. 2

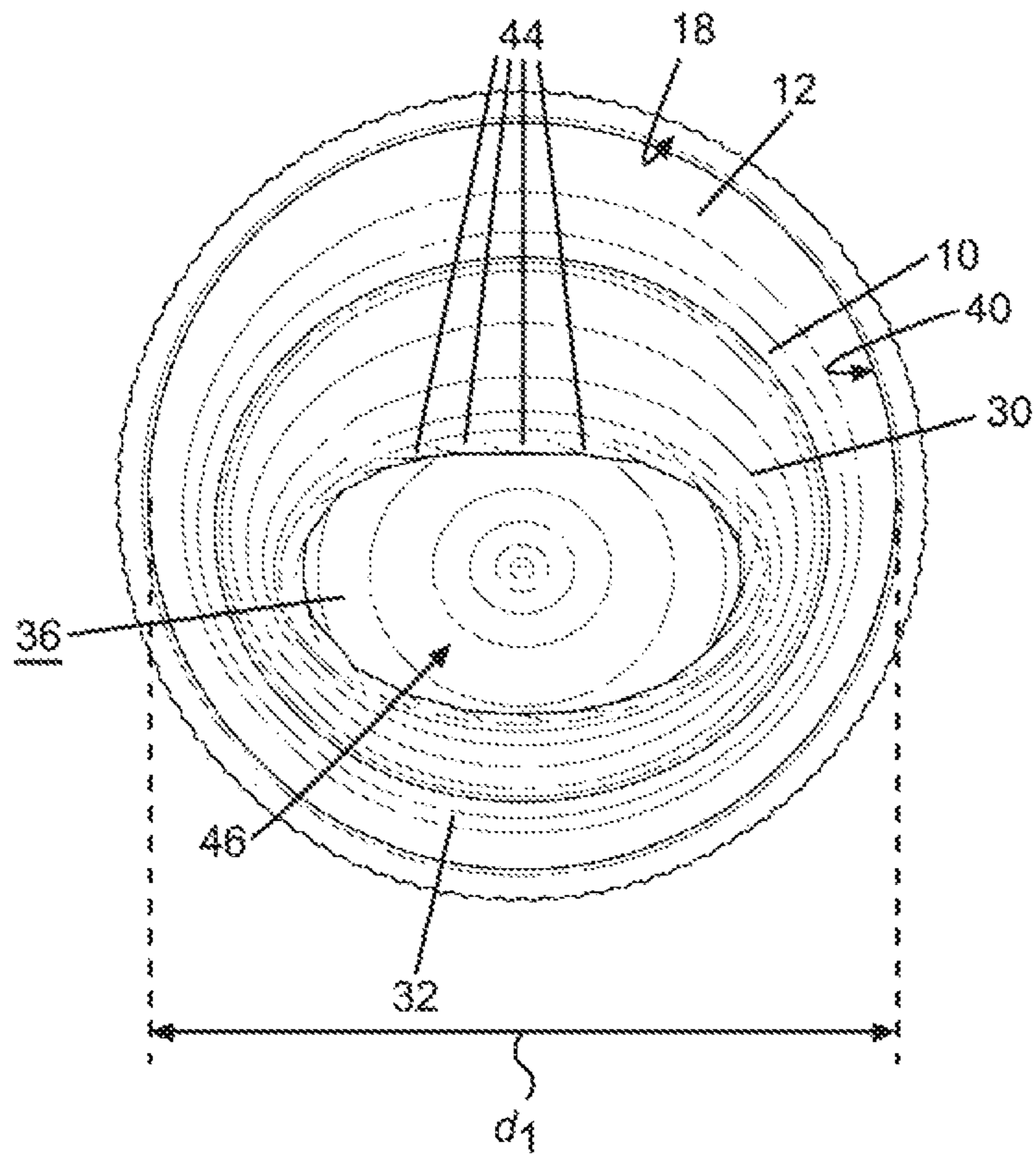


FIG. 3

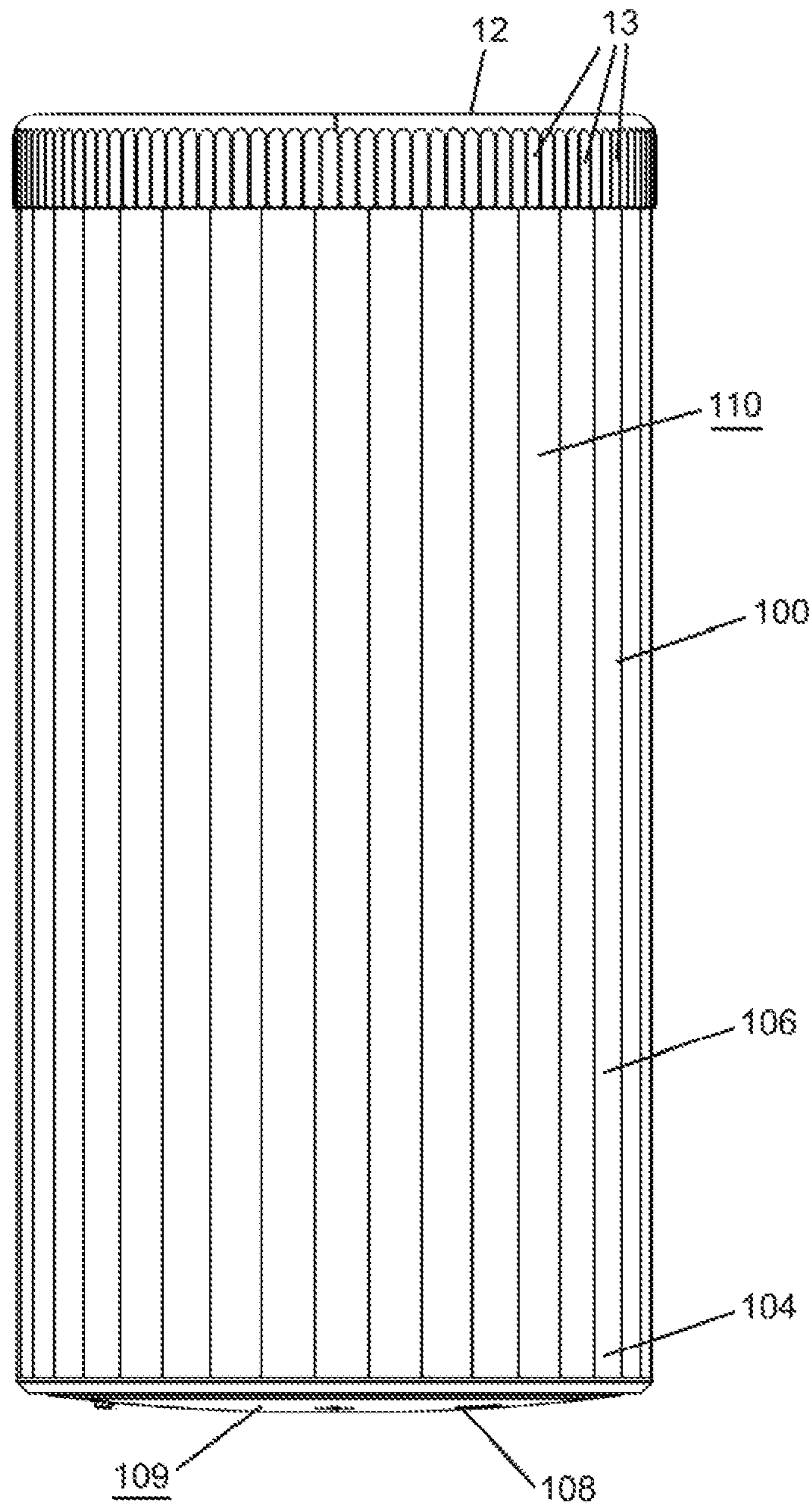


FIG. 4

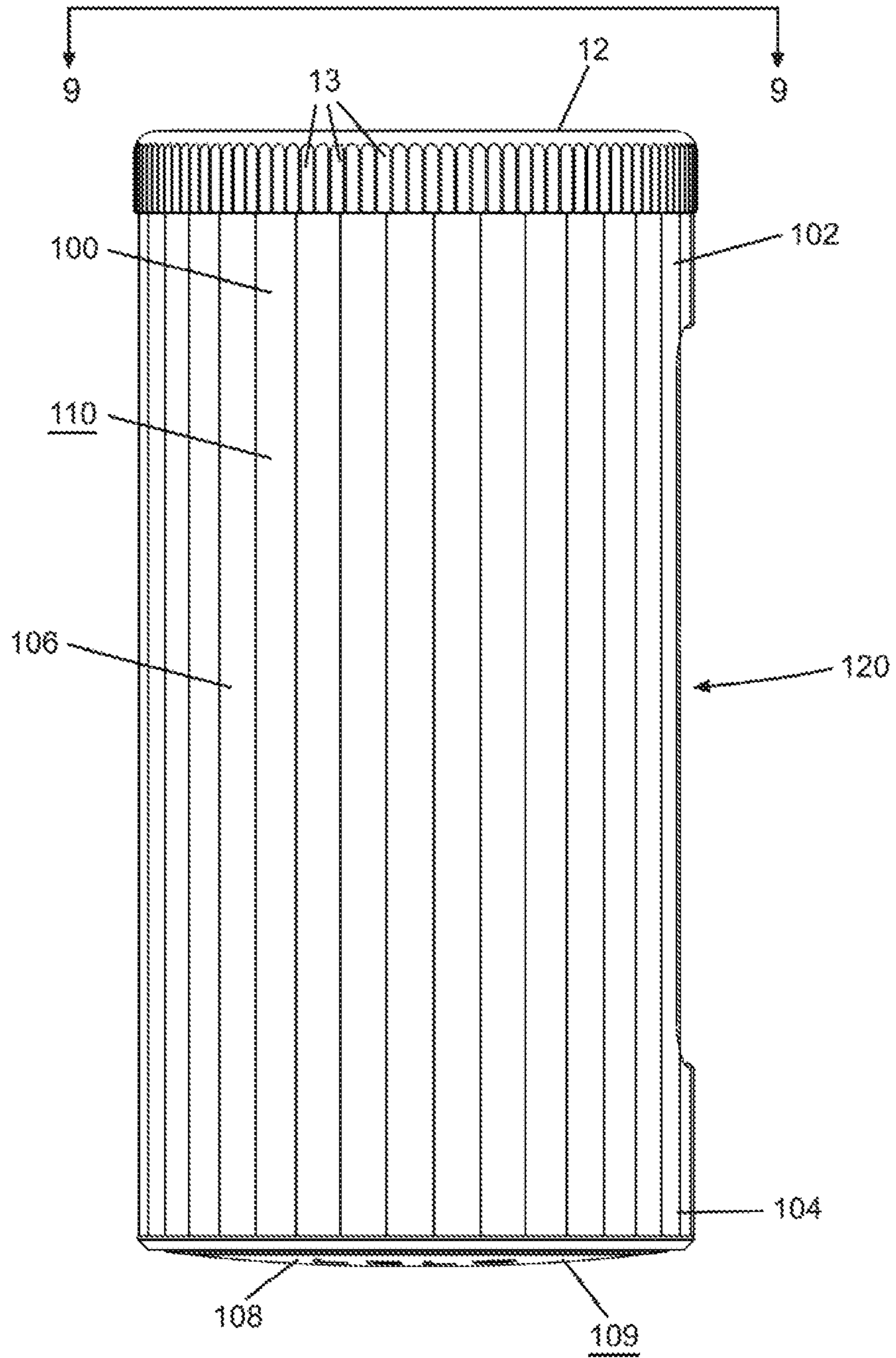


FIG. 5

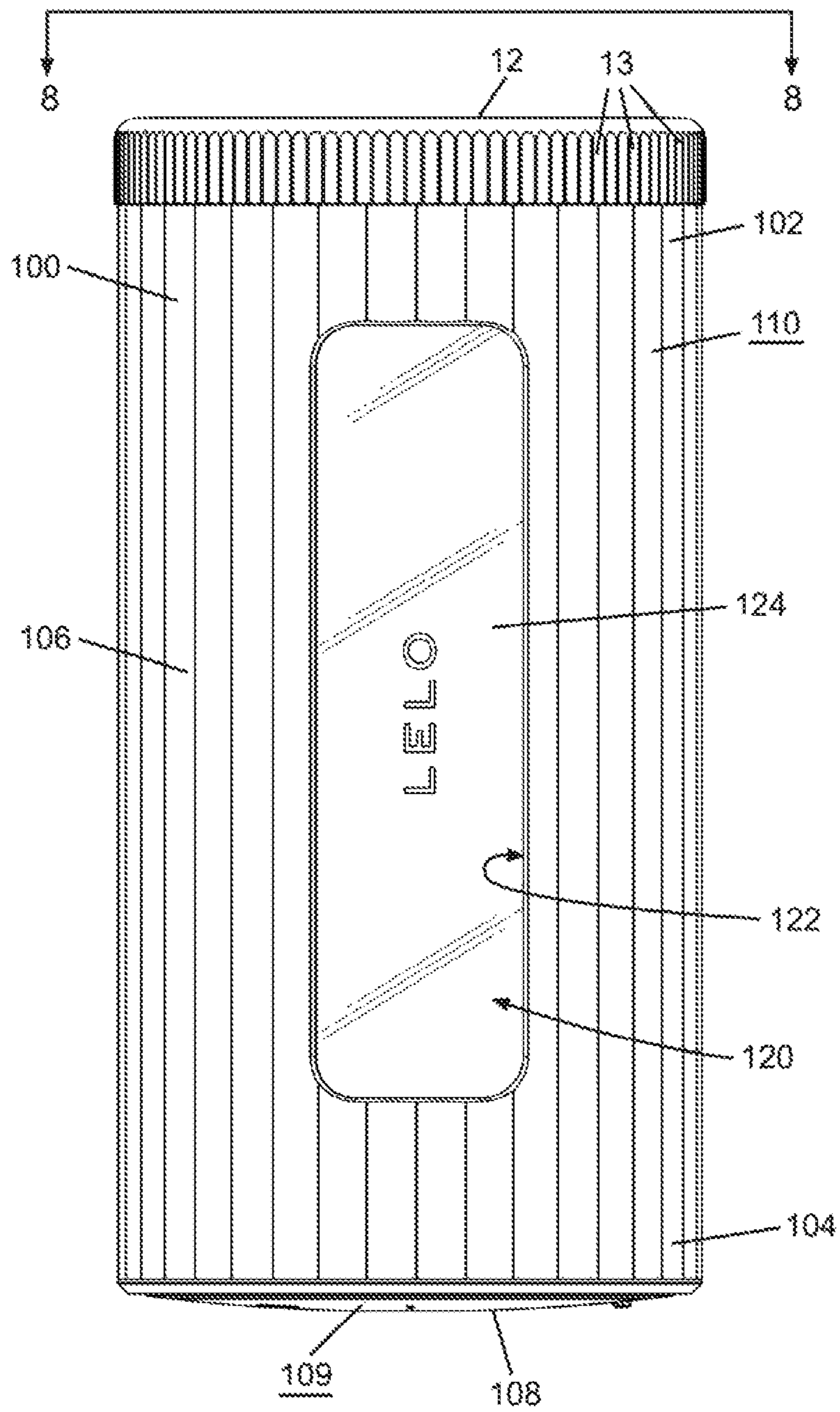


FIG. 6

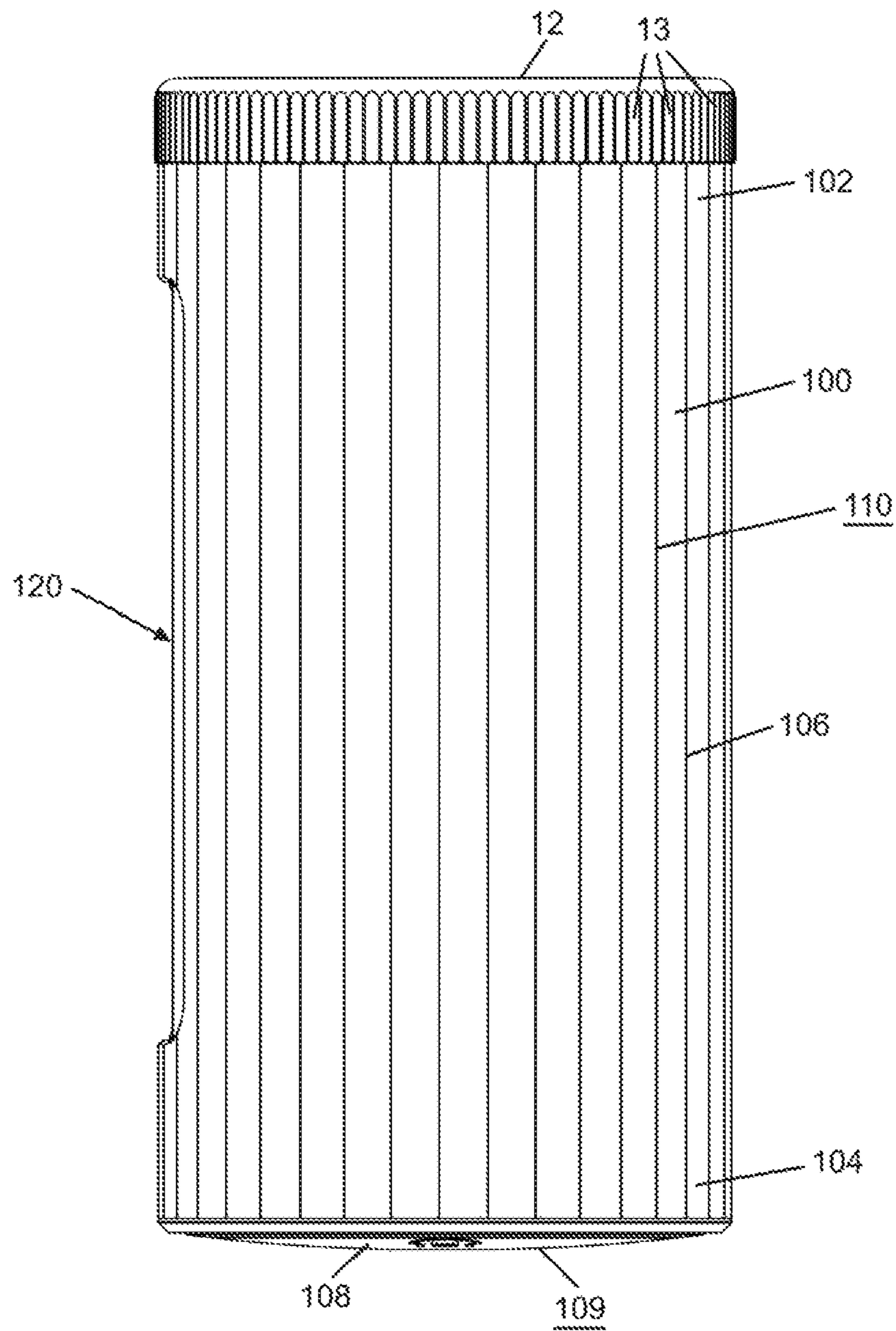


FIG. 7

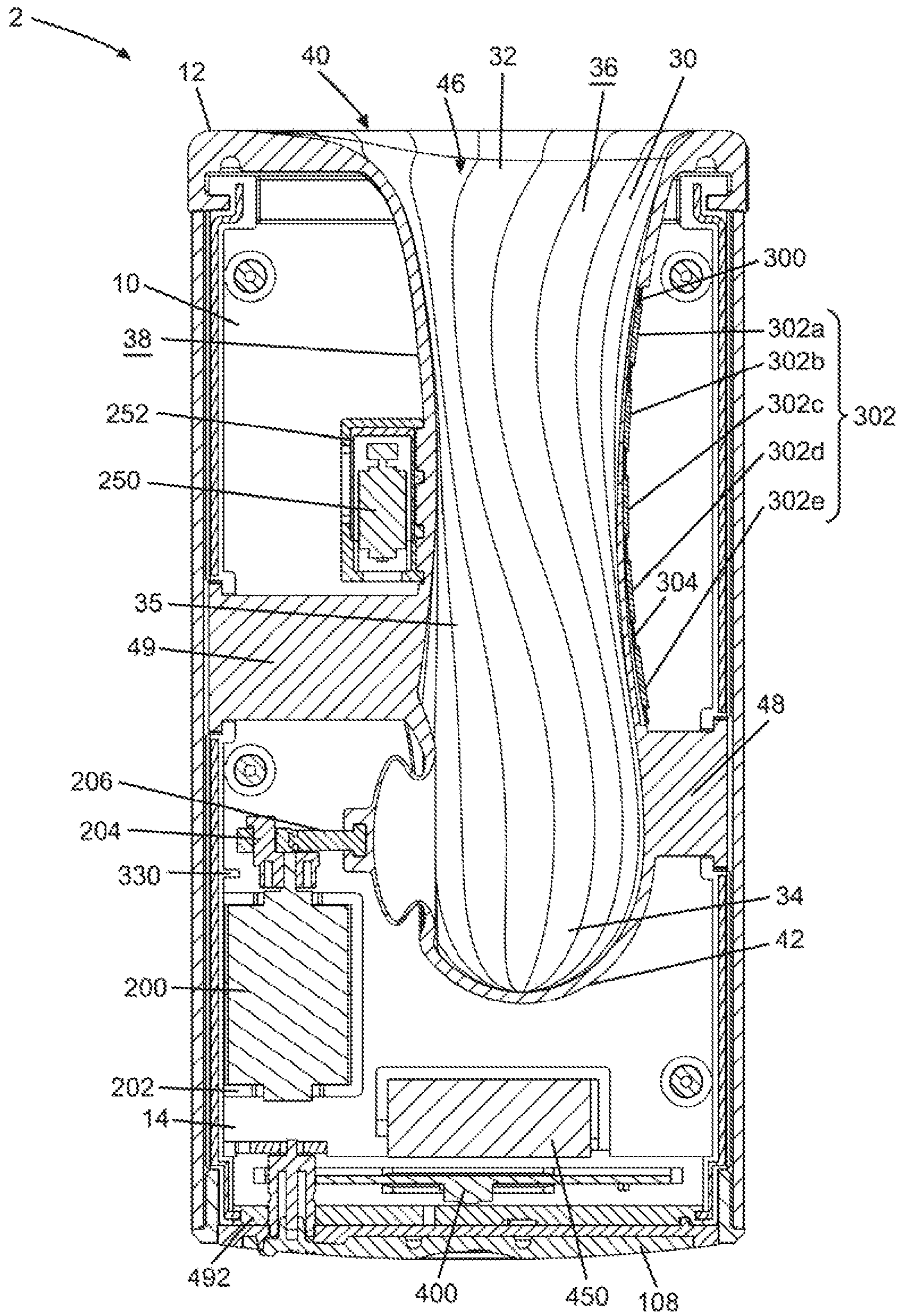


FIG. 8

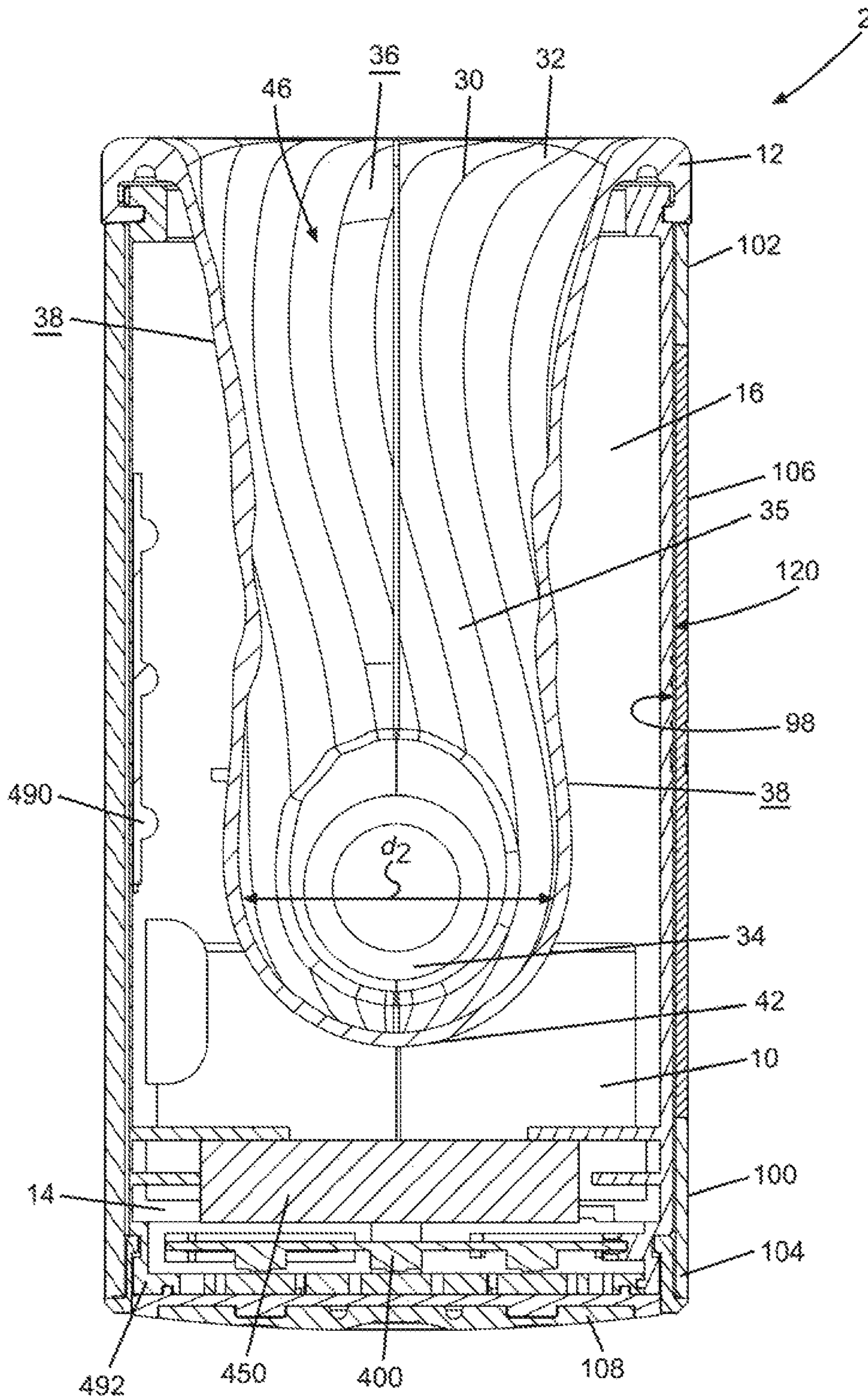


FIG. 9

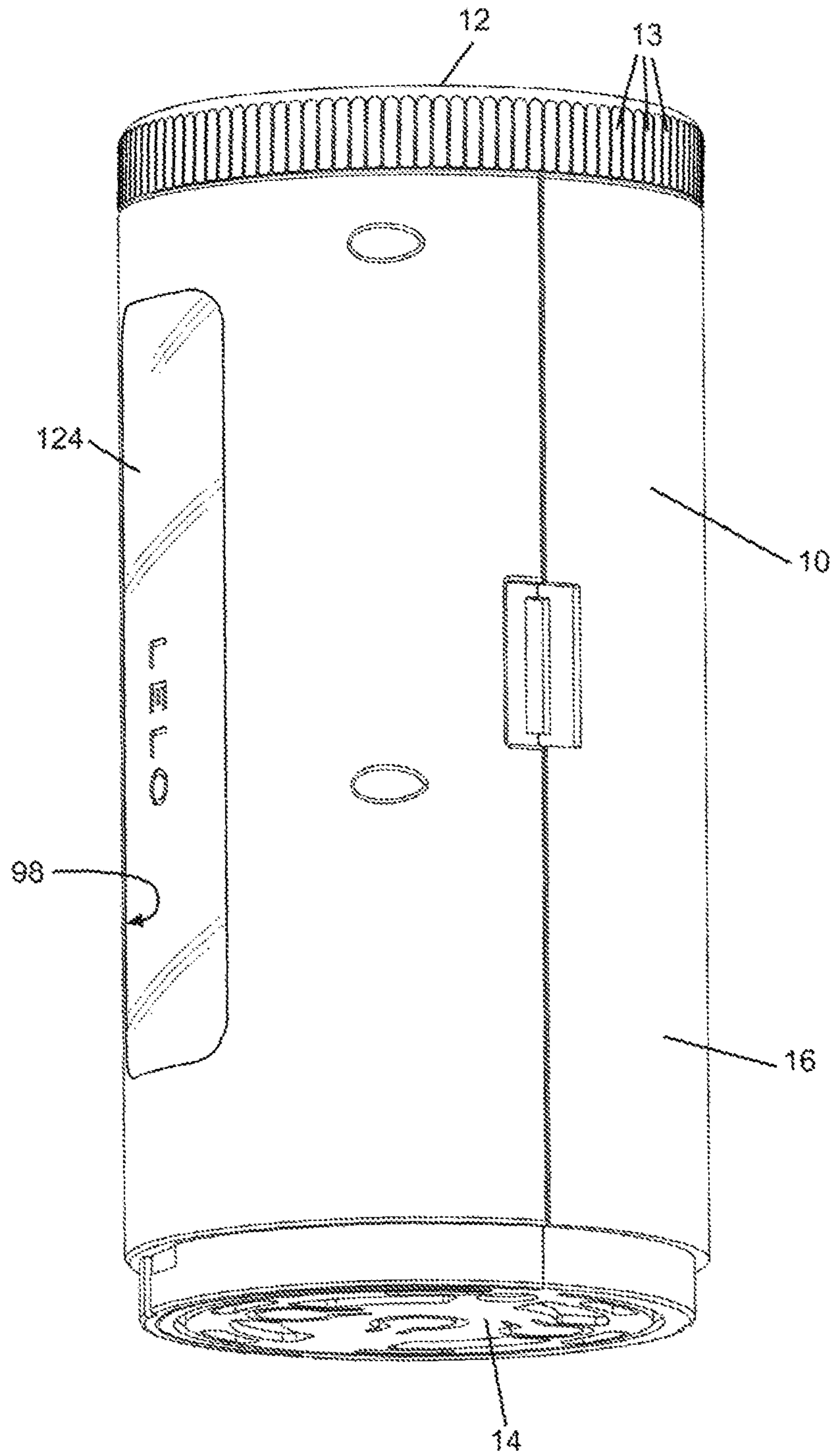


FIG. 10

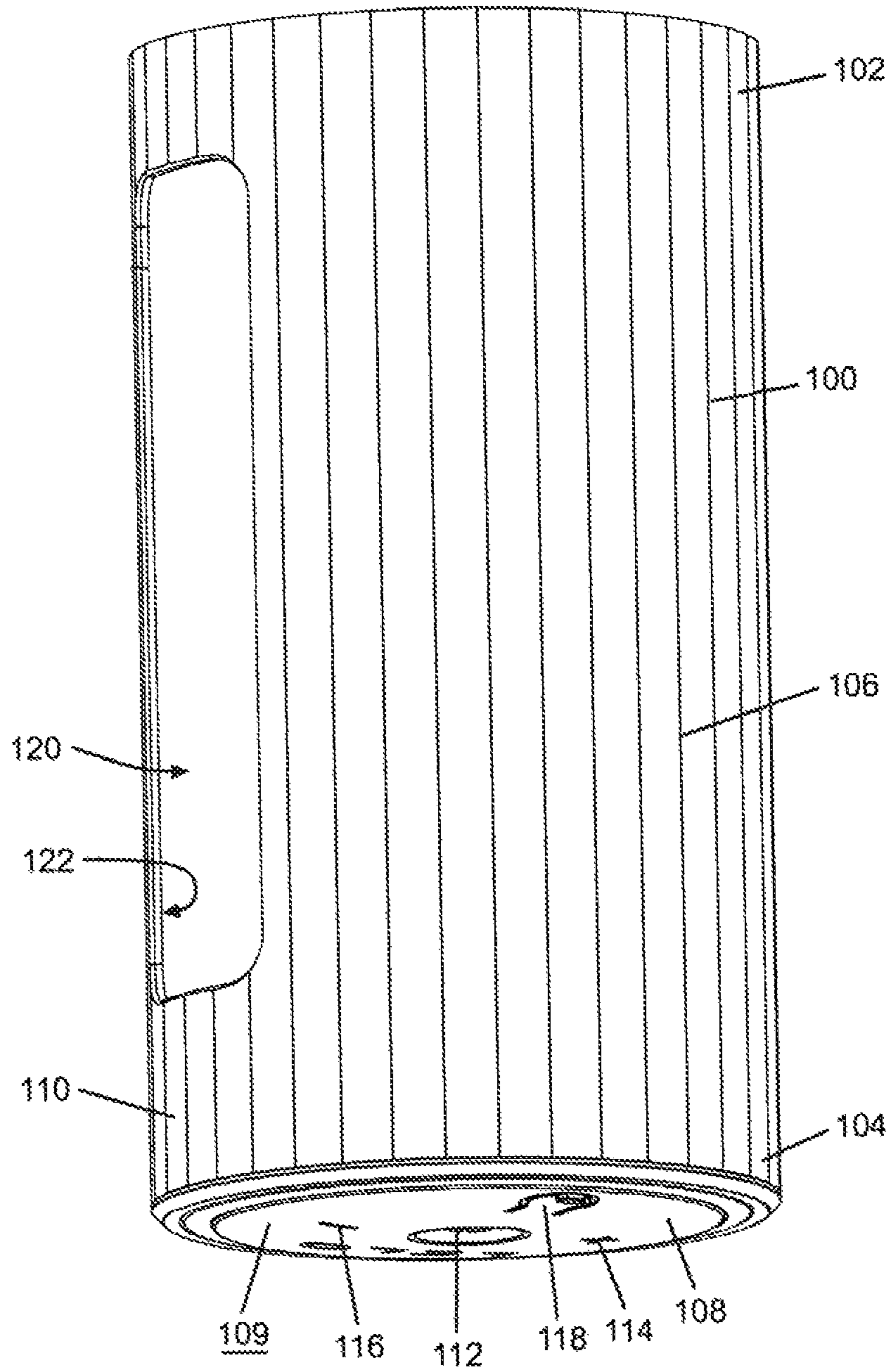


FIG. 11

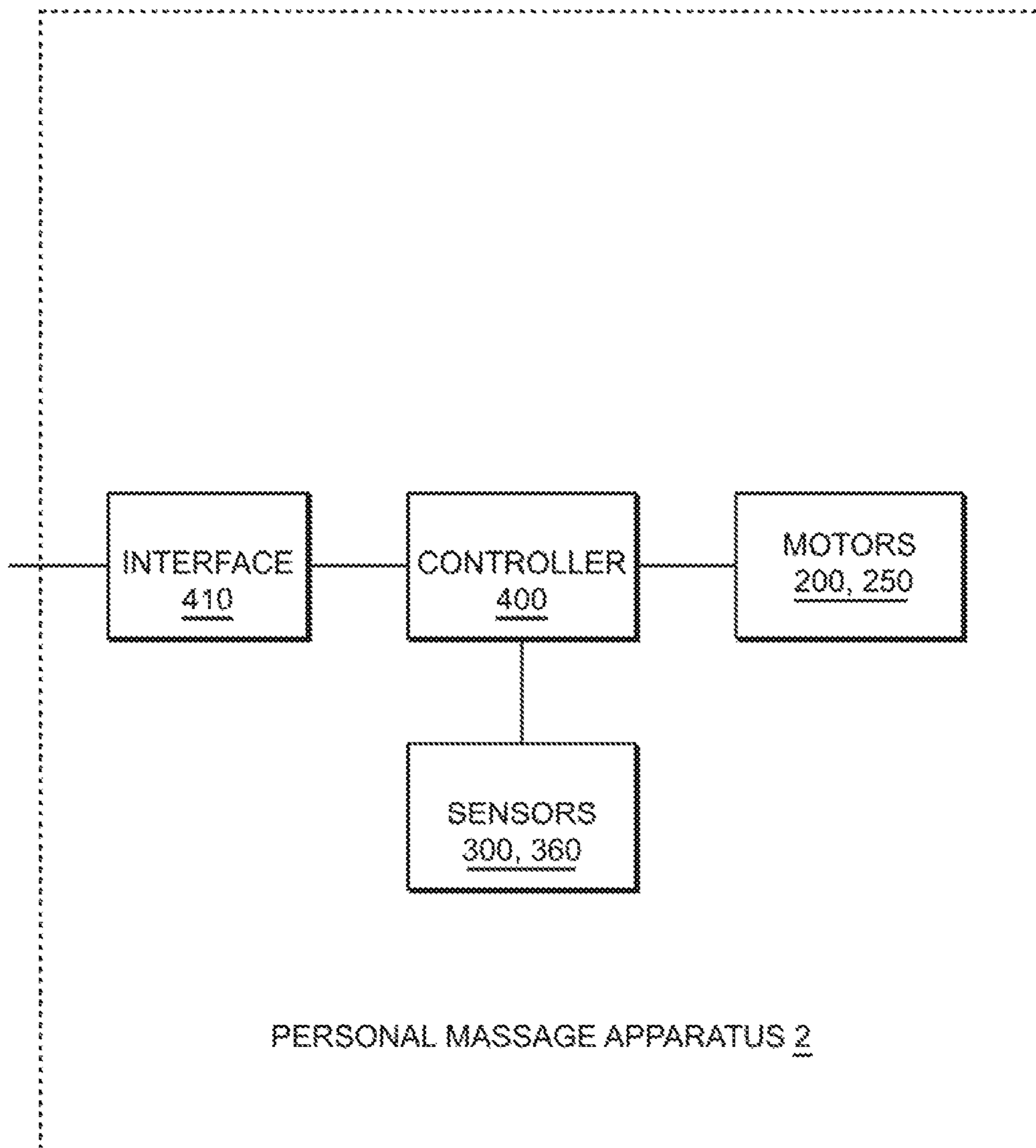


FIG. 12

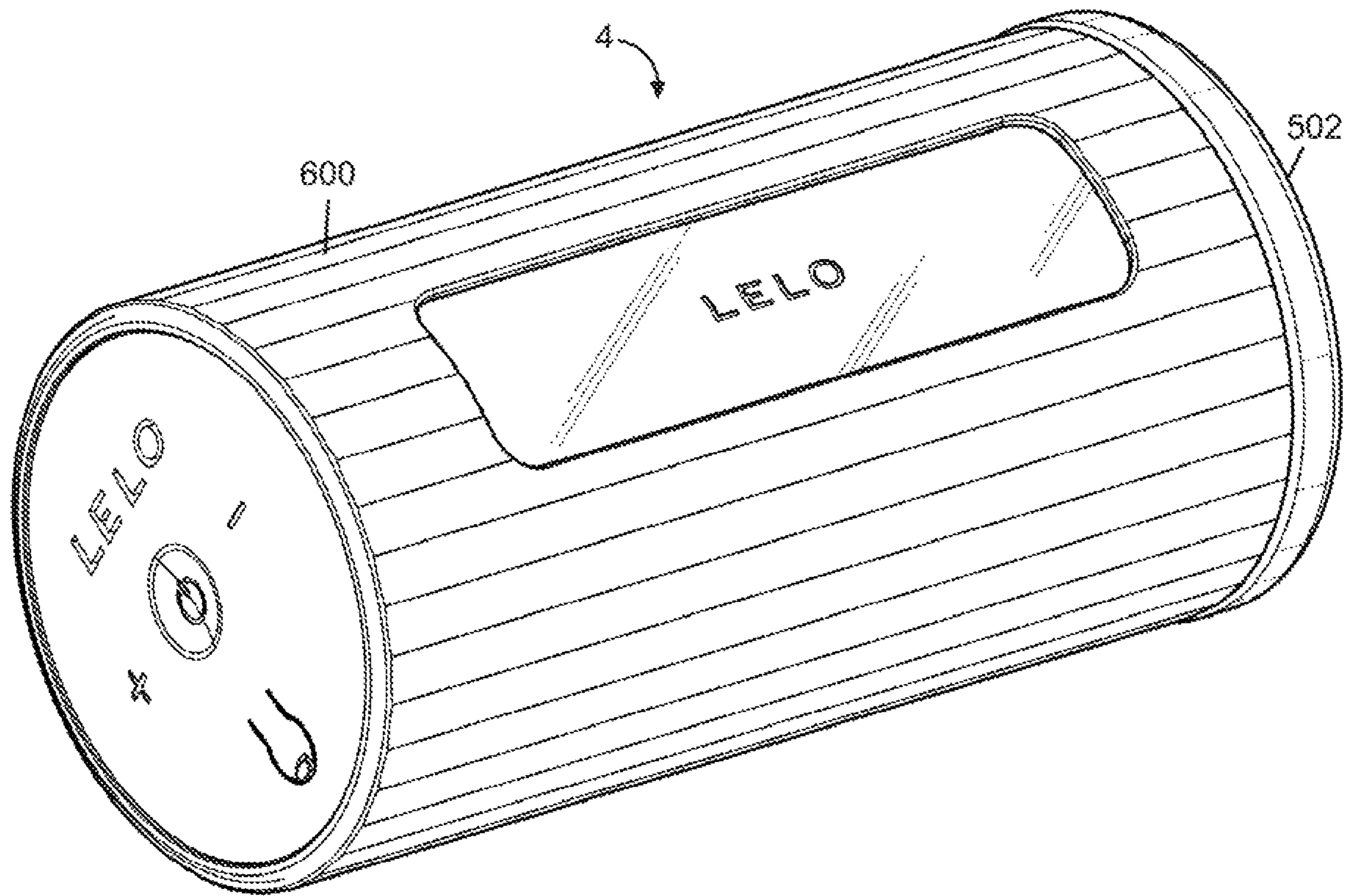


FIG. 13

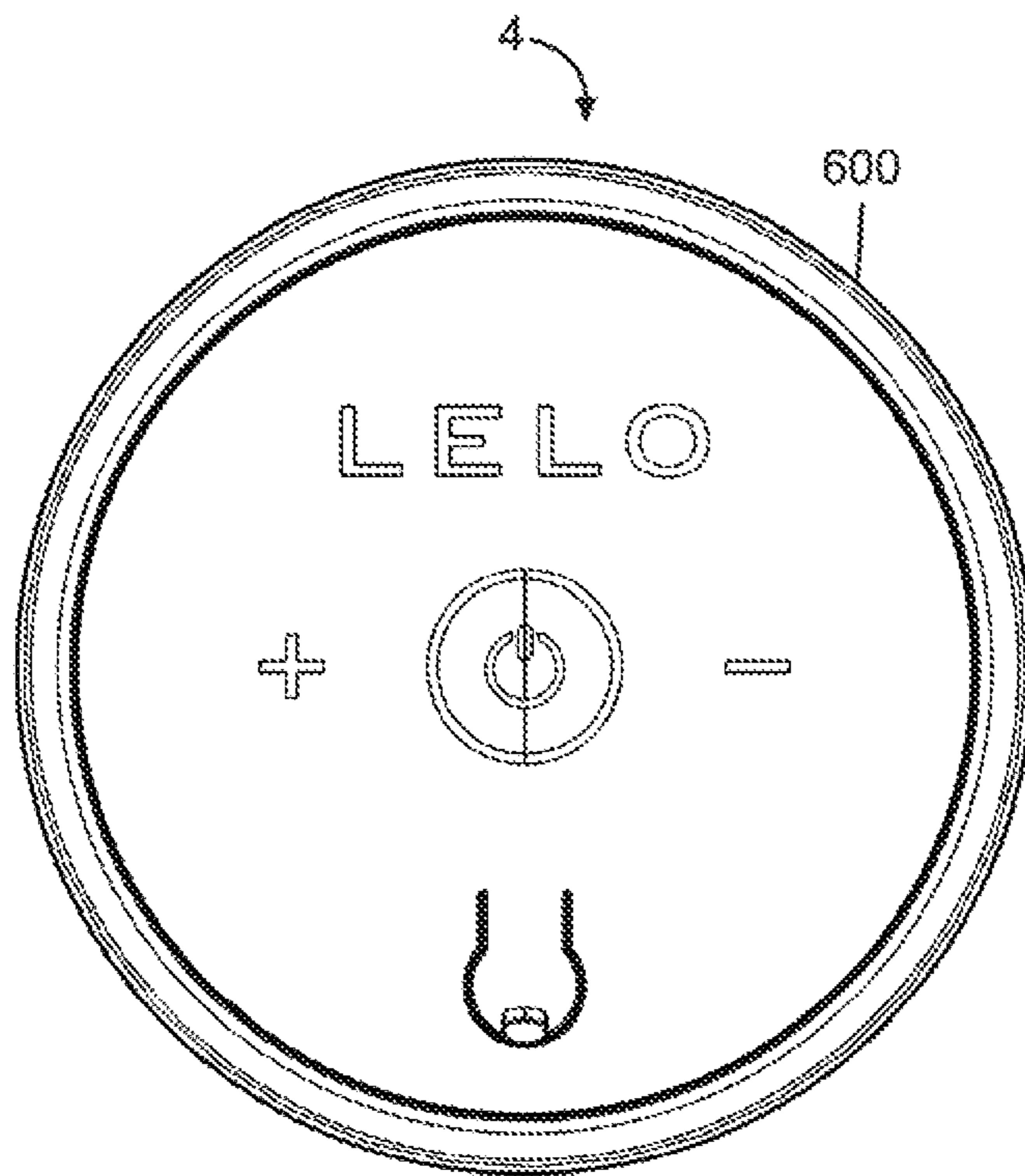


FIG. 14

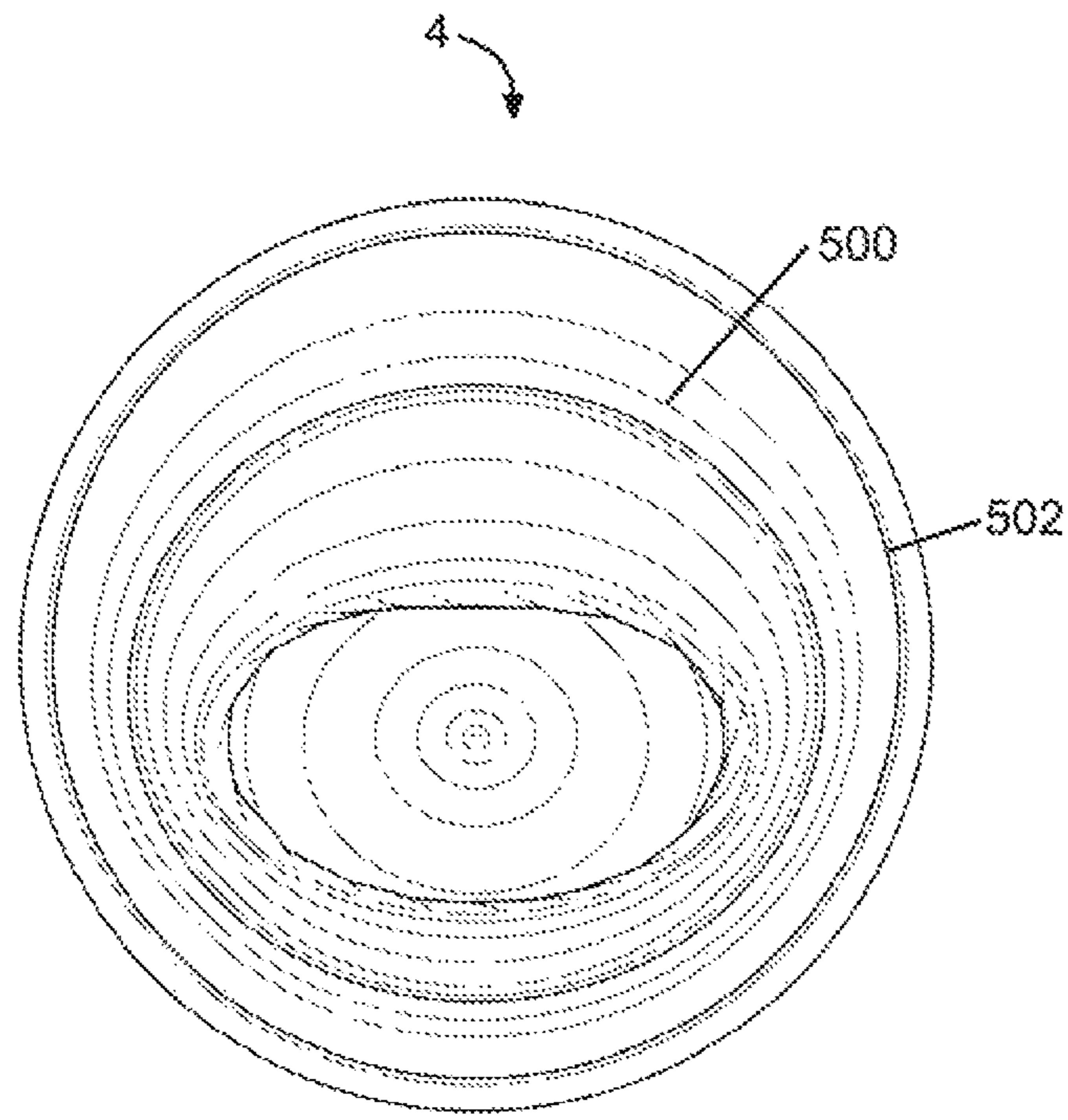


FIG. 15

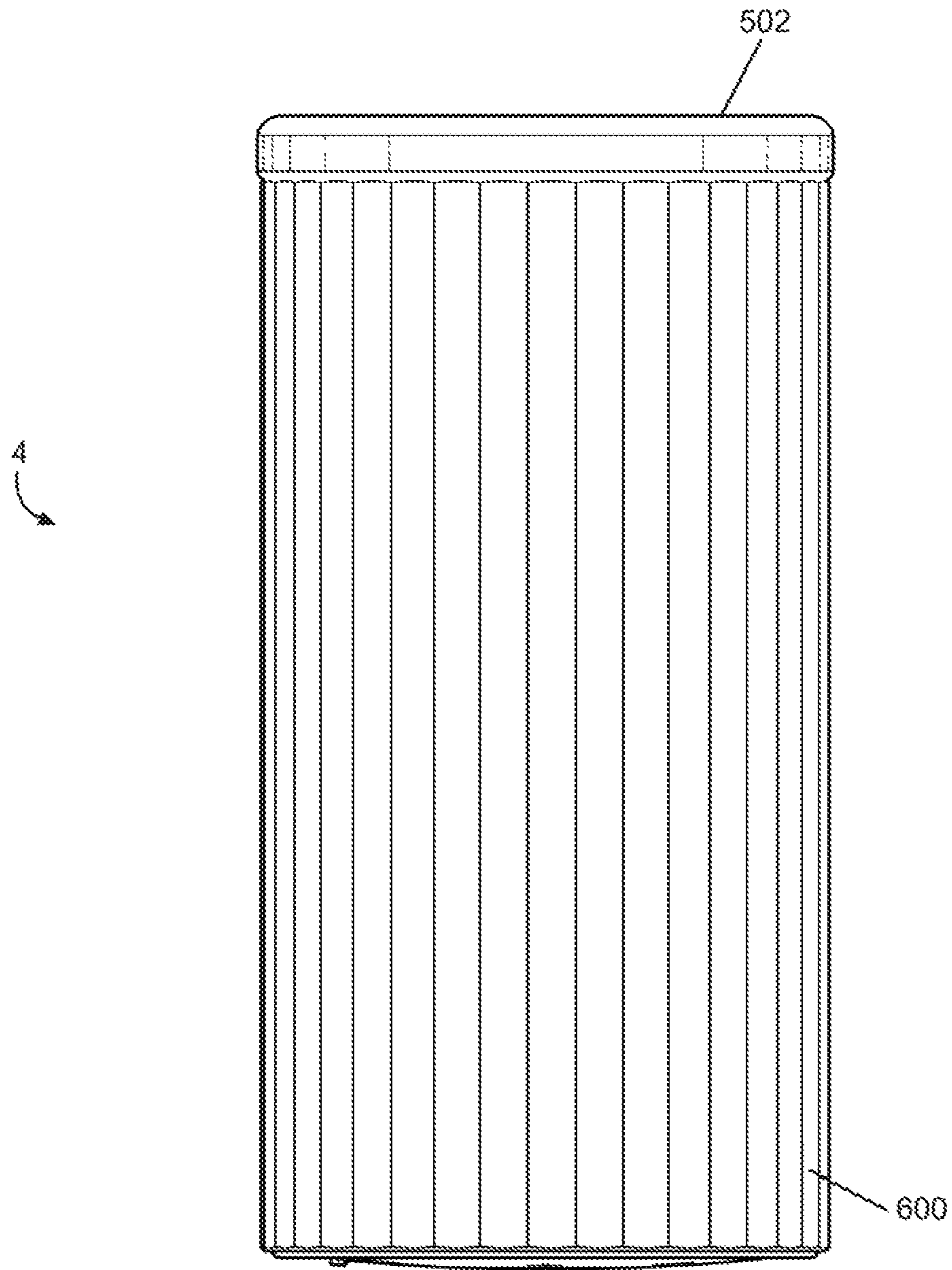


FIG. 16

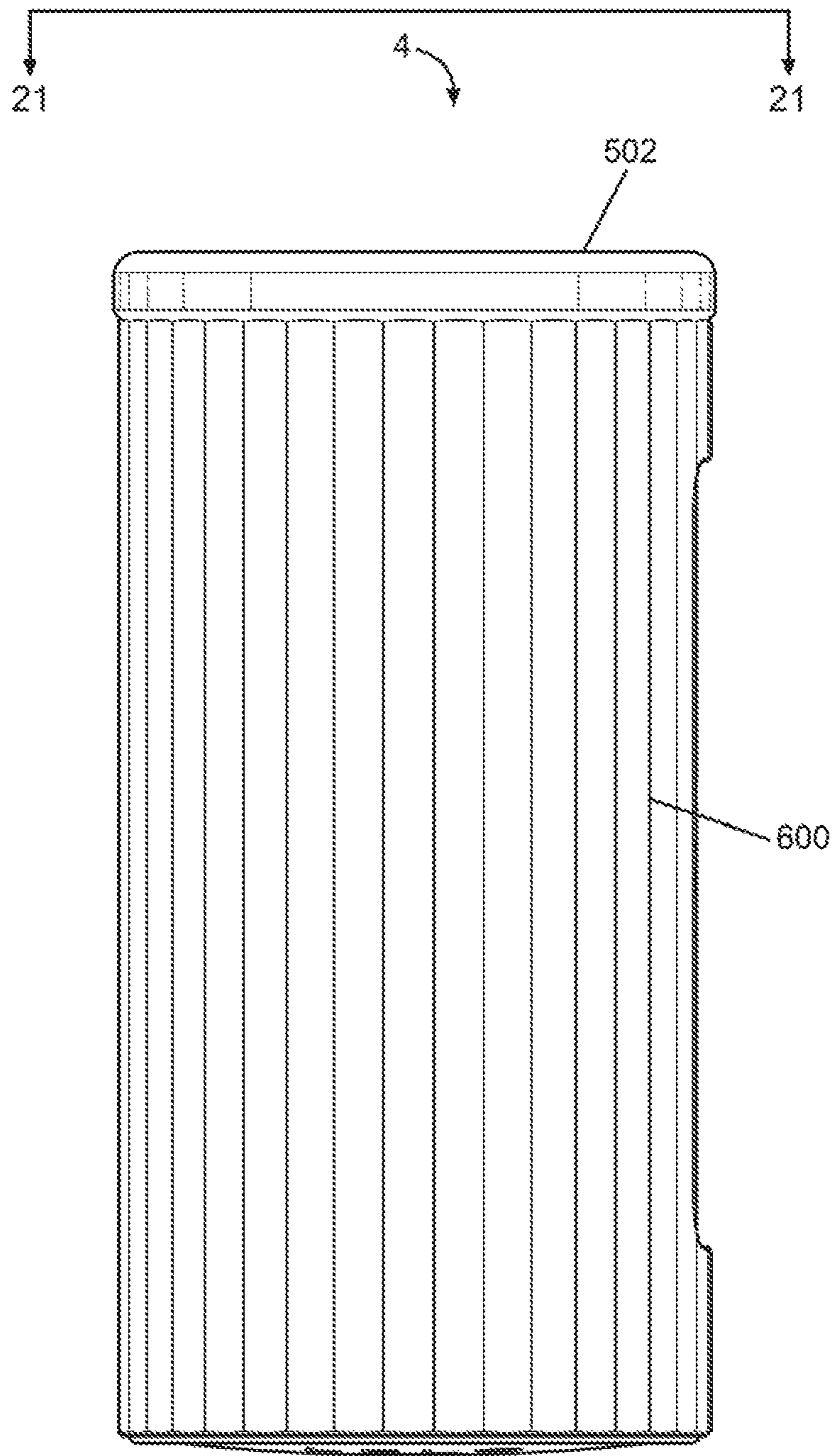


FIG. 17

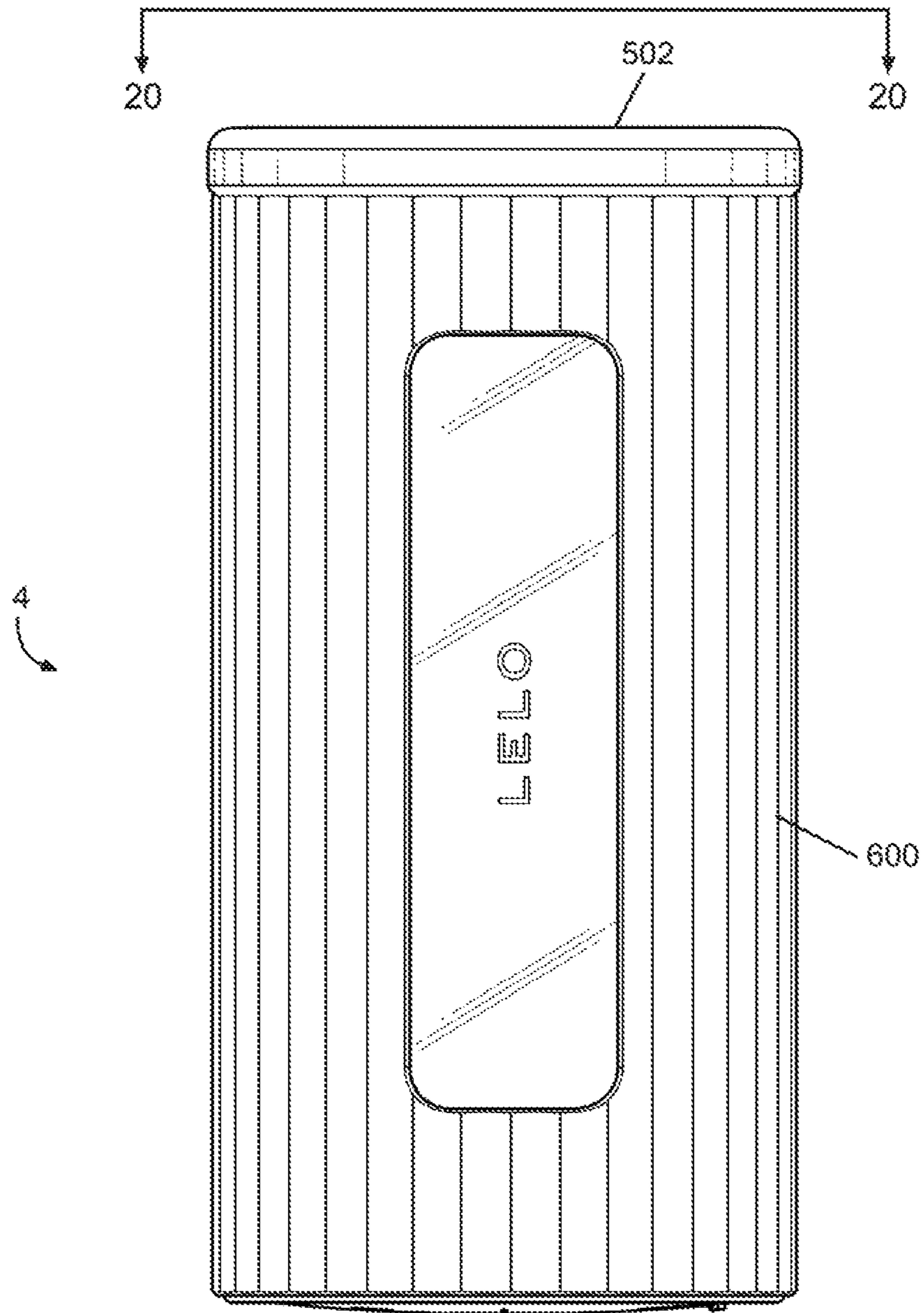


FIG. 18

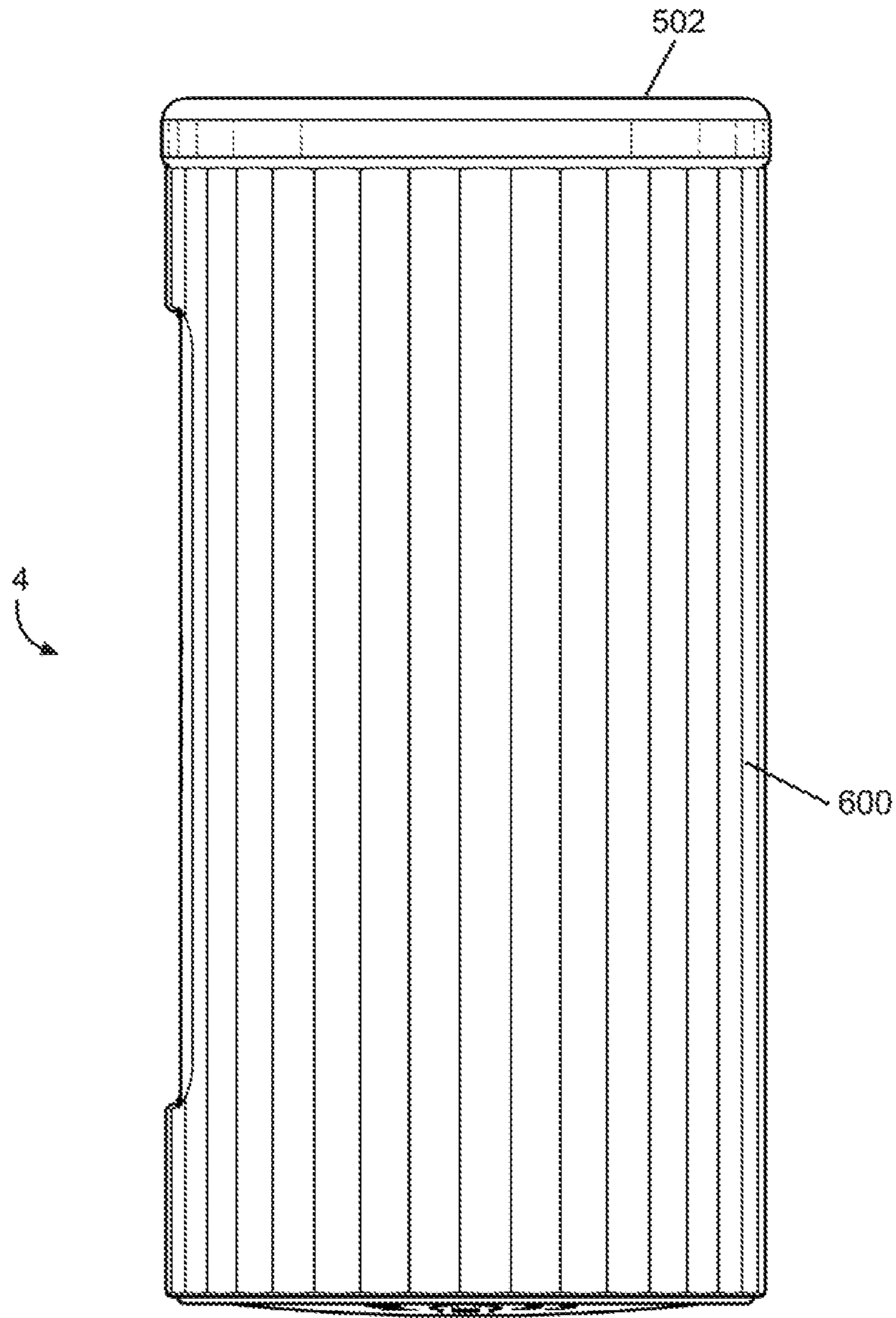


FIG. 19

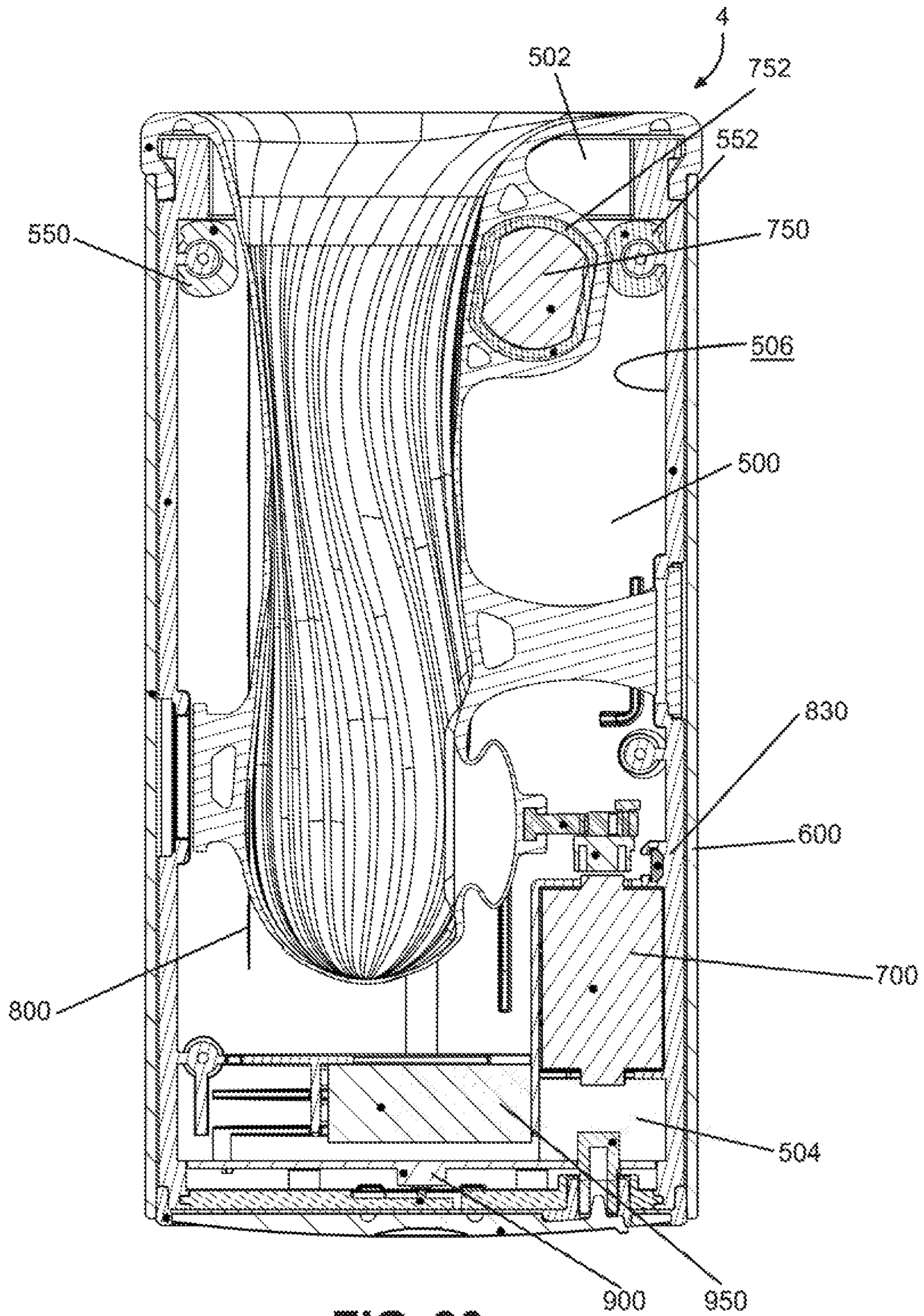


FIG. 20

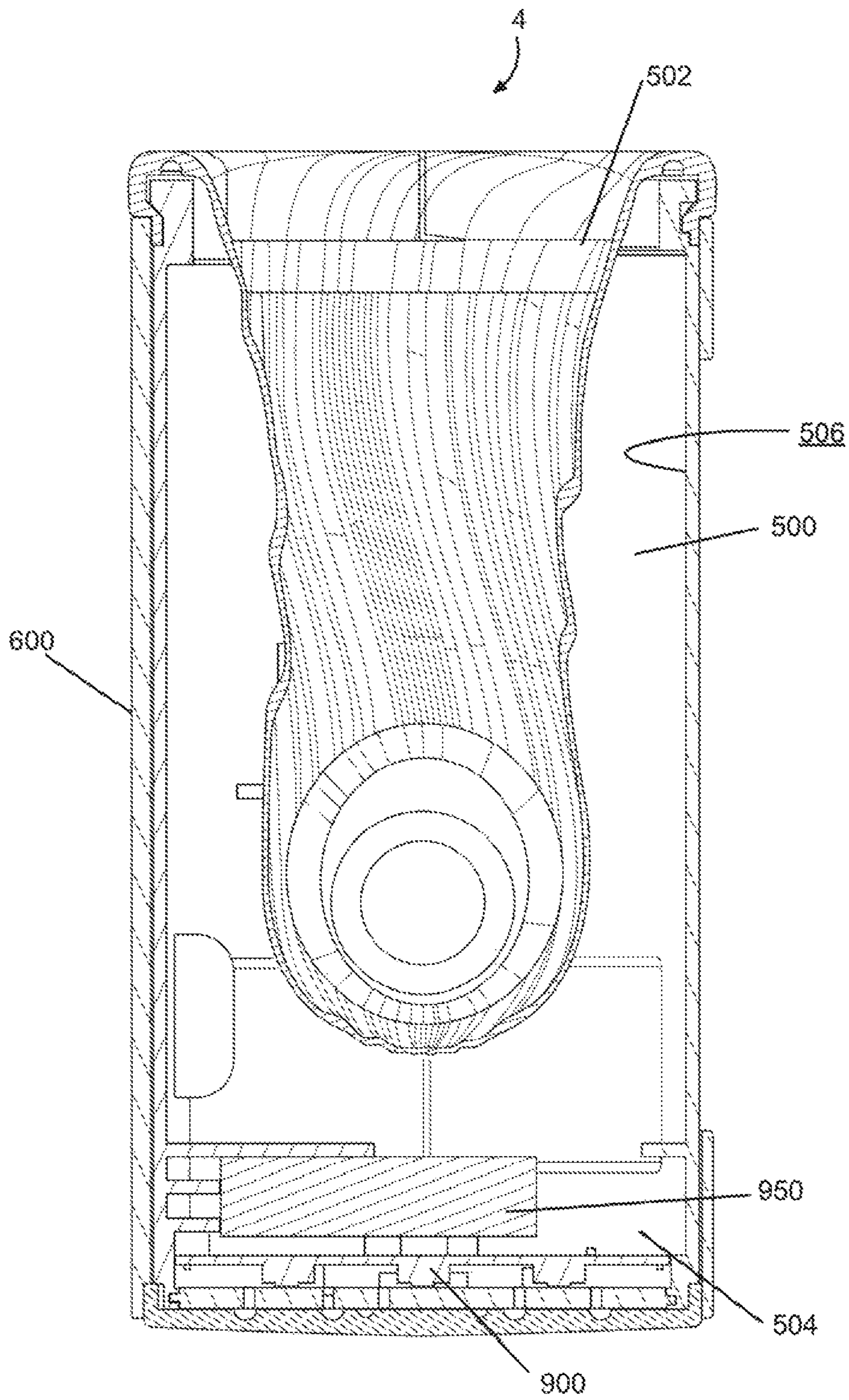


FIG. 21

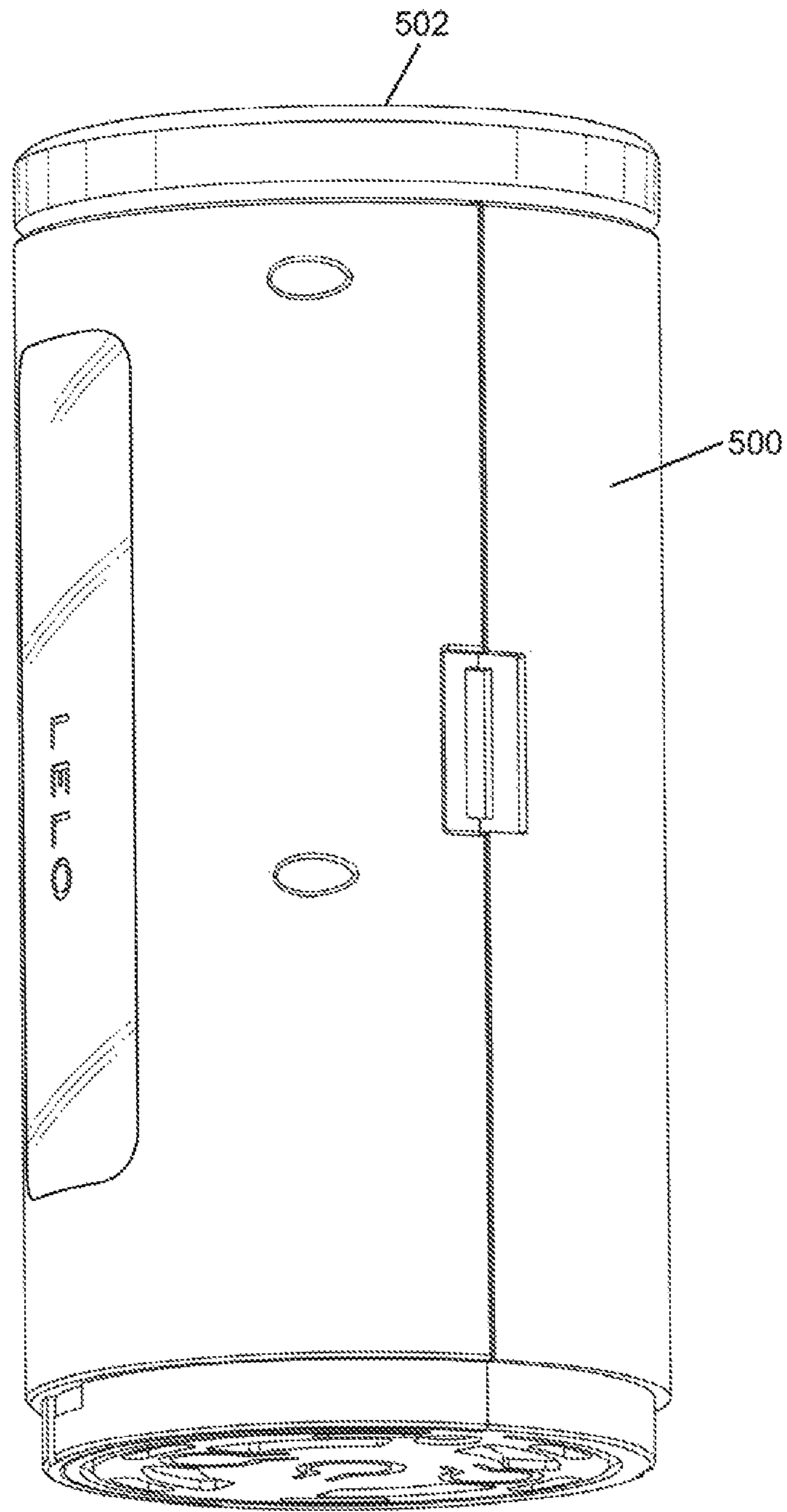


FIG. 22

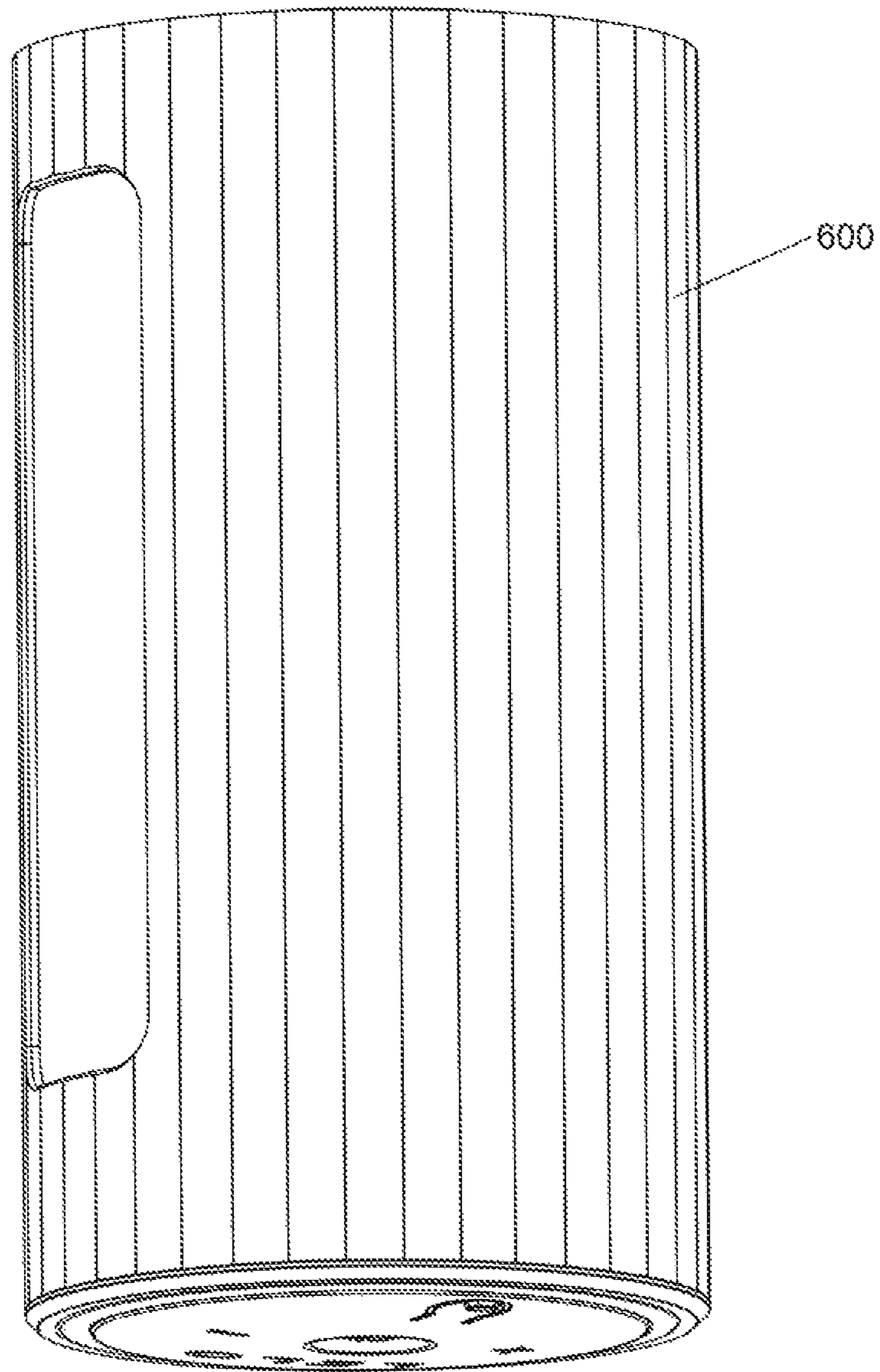


FIG. 23

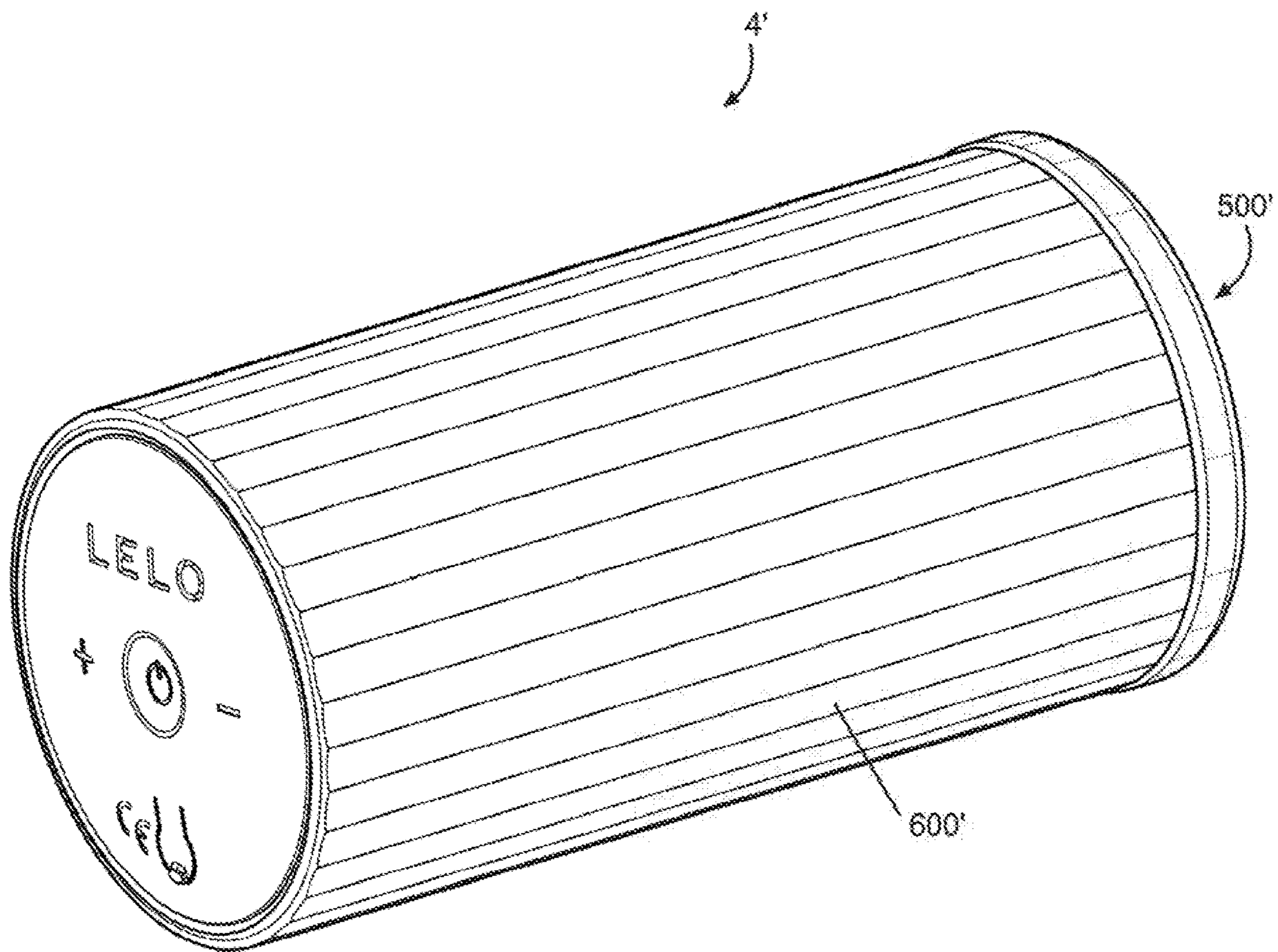


FIG. 24

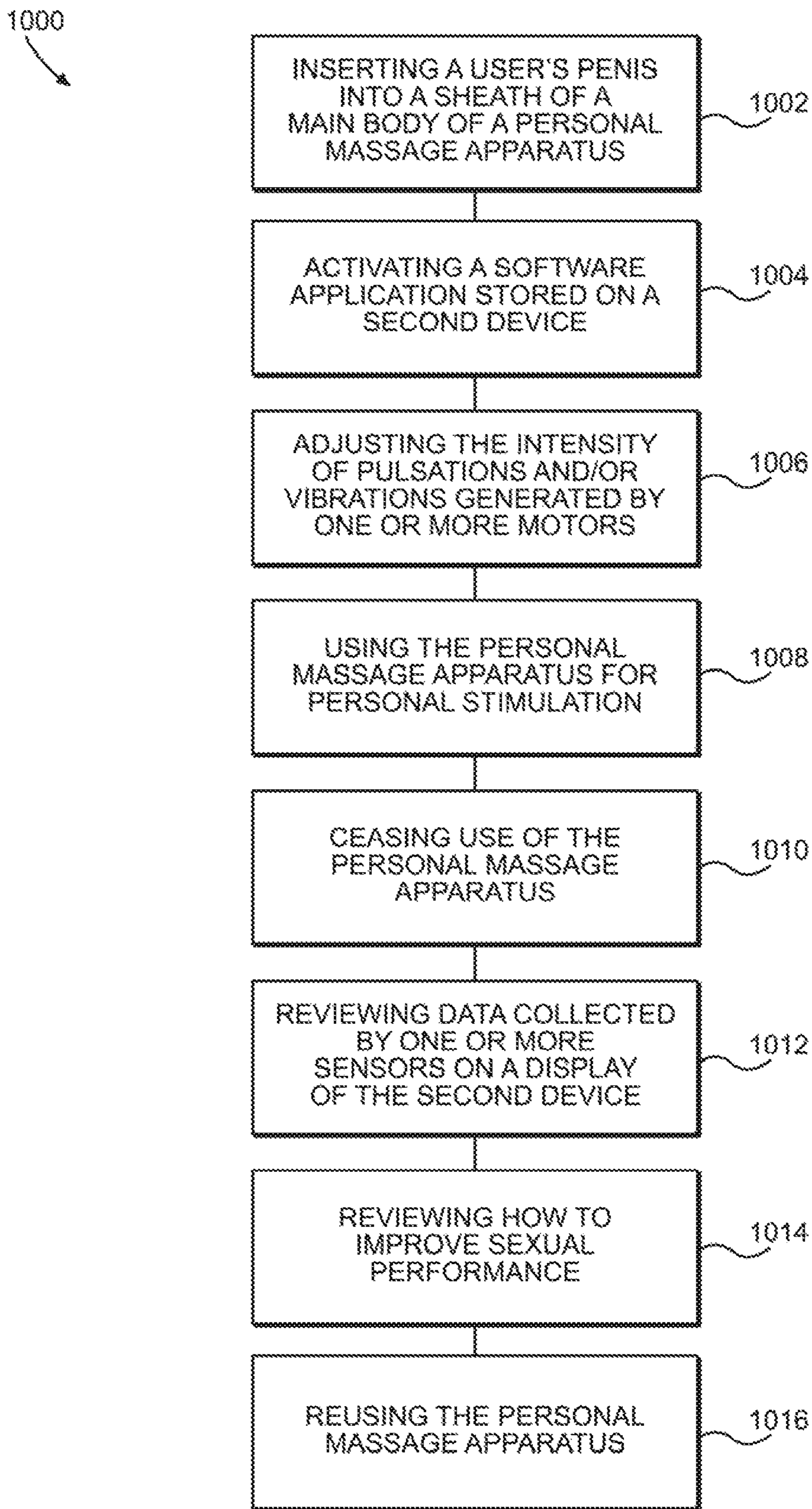


FIG. 25

1**PERSONAL MASSAGE APPARATUSES FOR
MEN AND METHODS OF USE****CROSS-REFERENCE TO RELATED
APPLICATIONS**

This application claims the benefit U.S. Provisional Patent Application No. 62/716,458, filed Aug. 9, 2018, which is incorporated into this disclosure in its entirety.

FIELD

The disclosure relates generally to the field of personal massage apparatuses and methods of use. More particularly, the disclosure relates to personal massage apparatuses designed to be used by men on erogenous zones of their bodies.

BACKGROUND

Personal massage apparatuses designed to be used by men may include several devices configured to provide stimuli to a portion of a human body. Examples of such devices include vibrators, insertion devices, and devices configured to simulate the look and feel of a penis, scrotum, or anus. These devices focus on the pleasure of a male user.

While such devices may indeed provide pleasure to a male user, some men seek to improve upon their sexual performance while still obtaining pleasure. More specifically, male users often wish to improve upon their sexual technique, stamina, and overall performance generally, while also receiving pleasurable stimulation. Additionally, users may wish to receive data based on performance and/or their own physical statistics in order to track improvement over time. The art does not include such devices.

Accordingly, a need for personal massage apparatuses that can stimulate the body of a user, teach a user how to improve his sexual performance, and track data related to a user's performance is needed.

BRIEF SUMMARY OF EXAMPLES

Various example personal massage apparatuses and methods of use are described and illustrated herein.

An example personal massage apparatus configured to stimulate a penis of a user comprises an elongate, tubular main body having an open first end, a closed second end, a middle portion extending from the first end to the second end, and an elongate, flexible sheath disposed within the main body having a proximal end and a distal end, the sheath defining a chamber extending from an opening defined by the proximal end of the sheath to the distal end of the sheath, the sheath being attached to the first end of the main body and comprised of silicone, the sheath configured to receive said penis of said user within the chamber, an elongate, tubular shell attached to and surrounding substantially all of the middle portion of the main body, the shell being comprised of metal a motor disposed within the main body and adjacent the sheath, the motor configured to produce vibrations in order to stimulate said penis, a controller disposed within the main body and configured to operate the motor, and a first sensor disposed within the main body and adjacent an exterior surface of the sheath, the sensor configured to sense the proximity of said user to the first sensor.

Another example personal massage apparatus configured to stimulate a penis of a user comprises an elongate, tubular main body having an open first end, a closed second end, a

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middle portion extending from the first end to the second end, and an elongate, flexible sheath disposed within the main body having a proximal end and a distal end, the sheath defining a chamber extending from an opening defined by the proximal end of the sheath to the distal end of the sheath, the sheath being attached, to the first end of the main body and comprised of silicone, the sheath configured to receive said penis of said user within the chamber, an elongate, tubular shell attached to and surrounding substantially all of the middle portion of the main body, the shell being comprised of metal, a motor disposed within the main body and adjacent the sheath, the motor configured to produce vibrations in order to stimulate said penis, a controller disposed within the main body and configured to operate the motor, a first sensor disposed within the main body and adjacent an exterior surface of the sheath, the sensor configured to sense the proximity of said user to the first sensor, the first sensor comprising a capacitive sensor, and a second sensor disposed within the main body and adjacent the motor, the second sensor configured, to detect output produced by the motor.

Another example personal massage apparatus configured to stimulate a penis of a user comprises an elongate, tubular main body having an open first end, a closed second end, a middle portion extending from the first end to the second end, and an elongate, flexible sheath disposed within the main body having a proximal end and a distal end, the sheath defining a chamber extending from an opening defined by the proximal end of the sheath to the distal end of the sheath, the sheath being attached to the first end of the main body and comprised of silicone, the sheath, configured to receive said penis of said user within the chamber, an elongate, tubular shell attached to and surrounding substantially all of the middle portion of the main body, the shell being comprised of metal, a motor disposed within the main body and adjacent the sheath, the motor configured to produce vibrations in order to stimulate said penis, a controller disposed within the main body and configured to operate the motor, a first sensor disposed within the main body and adjacent an exterior surface of the sheath, the sensor configured to sense the proximity of said user to the first sensor, the first sensor comprising a capacitive sensor, a second sensor disposed within the main body and adjacent the motor, the second sensor configured to detect output produced by the motor, and a third sensor disposed on the controller, the third sensor configured to detect the orientation of the main body.

Additional understanding of the claimed apparatuses and methods can be obtained by reviewing the detailed description of selected examples, below, with reference to the appended drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an example personal massage apparatus.

FIG. 2 is a bottom view of the personal massage apparatus illustrated in FIG. 1.

FIG. 3 is a top view of the personal massage apparatus illustrated in FIG. 1.

FIG. 4 is an end view of the personal massage apparatus illustrated in FIG. 1.

FIG. 5 is a side view of the personal massage apparatus illustrated in FIG. 1.

FIG. 6 is another end view of the personal massage apparatus illustrated in FIG. 1.

FIG. 7 is another side view of the personal massage apparatus illustrated in FIG. 1.

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FIG. 8 is a cross-sectional view of the personal massage apparatus illustrated in FIG. 6, taken along line 8-8.

FIG. 9 is a cross-sectional view of the personal massage apparatus illustrated in FIG. 5, taken along line 9-9.

FIG. 10 is a perspective view of the main body of the personal massage apparatus illustrated in FIG. 1 separate from the shell.

FIG. 11 is a perspective view of the shell of the personal massage apparatus illustrated in FIG. 1 separate from the main body.

FIG. 12 is a diagram illustrating components of a networked personal massage apparatus in an example embodiment.

FIG. 13 is a perspective view of a second example personal massage apparatus.

FIG. 14 is a bottom view of the personal massage apparatus illustrated in FIG. 13.

FIG. 15 is a top view of the personal massage apparatus illustrated in FIG. 13.

FIG. 16 is an end view of the personal massage apparatus illustrated in FIG. 13.

FIG. 17 is a side view of the personal massage apparatus illustrated in FIG. 13.

FIG. 18 is another end view of the personal massage apparatus illustrated in FIG. 13.

FIG. 19 is another side view of the personal massage apparatus illustrated in FIG. 13.

FIG. 20 is a cross-sectional view of the personal massage apparatus illustrated in FIG. 18, taken along line 20-20.

FIG. 21 is a cross-sectional view of the personal massage apparatus illustrated in FIG. 17, taken along line 21-21.

FIG. 22 is a perspective view of the main body of the personal massage apparatus illustrated in FIG. 13 separate from the shell.

FIG. 23 is a perspective view of the shell of the personal massage apparatus illustrated in FIG. 13 separate from the main body.

FIG. 24 is a perspective view of an alternative personal massage apparatus.

FIG. 25 is a flowchart representation of an example method of using a personal massage apparatus.

DESCRIPTION OF EMBODIMENTS

The following detailed description and the appended drawings describe and illustrate various example devices suitable for use as personal massage apparatuses. The description and drawings are provided to enable one skilled in the art to make and use one or more example personal massage apparatuses. They are not intended to limit the scope of the claims in any manner.

FIGS. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11 illustrate an example personal massage apparatus 2 configured to be used by men and/or one or more components thereof. The personal massage apparatus 2 comprises a main body 10, a shell 100, and first motor 200, a second motor 250, a first sensor 300, a second sensor 330, a third sensor (not illustrated in the FIGS.), a controller 400, a battery 450, and various other components that will be described in greater detail below.

The main body 10 is elongate and tubular and includes a first end 12, a second end 14, and a middle portion 16 extending from the first end 12 to the second end 14, in the illustrated embodiment, the first end 12 is open and the second end 14 is closed. Each of the first and second ends 12, 14 are substantially circular in shape and the first end 12 defines an opening 18, which is also substantially circular in shape. The first end 12 and the opening 18 are configured to

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cooperatively allow a user to insert a portion of himself into a chamber 46 defined by the main body 10. The main body 10 is substantially cylindrical in shape along the middle portion 16 and it houses various components described below. The opening 18 defines a first diameter d_1 , as well. The second end 14 and middle portion 16 of the main body 10 are comprised of plastic in the illustrated embodiment, while the first end 12 is comprised of silicone. The first end 12 includes a set of ridges 13, as well. A skilled artisan will be able to select suitable components of the main body according to a particular example based on various considerations, including the size and shape of the penis of the potential user, the desired length of the main body, and the desired weight of the main body. In other embodiments, the first end, second end, and middle portion of the main body may be comprised of any suitable material. In various embodiments, the main body may have any shape, including that of a cone, pyramid, box, and any other suitable shape into which a user may insert his penis. In different embodiments, the opening of the first end may have any shape, including that of a triangle, ellipse, oval, square, rectangle, and pentagon. In other embodiments, the first diameter may be between about 4 centimeters (“cm”) and about 16 cm, between about 6 cm and about 14 cm, and between about 8 cm and about 12 cm. In additional embodiments, the length of the main body from the first to the second end may be between about 8 cm and about 30 cm, between about 12 cm and about 26 cm, and between about 16 cm and about 22 cm. In other embodiments, the first end may not define ridges.

The main body 10 also includes an elongate, flexible sheath 30 disposed within the main body 10 having a proximal end 32, a distal end 34, a middle portion 35 extending from the proximal end 32 to the distal end 34, an inner surface 36, and an outer surface 38. The proximal end 32 is attached to the first end 12 and defines an opening 40 has a diameter that is only slightly smaller than that of the first end 12. The opening 40 is substantially circular in shape and provides a way of entry into the chamber 46 that is cooperatively defined by the proximal end 32, distal end 34, and middle portion 35, and extends from the proximal end 32 to the distal end 34. The proximal end 32 is configured to allow a user to insert his penis into the sheath 30 via the opening 40 such that the head of a user’s penis will be placed adjacent the distal end 34, the base of the penis will be adjacent the proximal end 32, and the shaft of the penis will extend along the middle portion 35. The sheath 30 decreases in diameter along its length until it reaches approximately halfway between the proximal end 32 and the distal end 34. At that point, the sheath 30 increases in diameter as it extends toward the distal end 34 until it reaches the second diameter d_2 , which is the maximum diameter of the distal end 34 of the sheath 30. The distal end 34 of the sheath 30 then decreases in diameter from the portion of the sheath 30 having a maximum diameter to the tip 42 of the sheath. This structure is configured to contour to the sizes and shapes of the typical human penis and provide maximum contact and pleasure to the penis once it has been inserted into the sheath 30.

In the illustrated embodiment, the sheath 30 is comprised of silicone. The silicone is high-quality, medical-grade silicone that repels bacteria. It is sufficiently soft to provide pleasure to a user, while also being durable enough to endure repeated use. The inner surface 36 of the sheath 30 optionally, as is illustrated, defines grooves 44 extending along the middle portion 35. The grooves 44 are configured to increase stimulation to the user and are best illustrated in FIG. 3.

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Additionally, the main body **10** includes a first support column **48** and a second support column **49** disposed within the cavity **20** of the main body **10**. The first and second support columns **48**, **49** extend from the middle portion **16** of the main body **10** to the outer surface **38** of the middle portion **35** of the sheath **30**. The support columns **48**, **49** are configured to maintain the sheath **30** generally in position within the main body **10** and are comprised of plastic surrounded by a layer of silicone.

A skilled artisan will be able to suitably configure the sheath according to a particular example based on various considerations, including the size and shape of the penis of the user, the desired length of the sheath, and the desired feel of the inner surface of the sheath. In other embodiments, the sheath may be comprised of any suitable materials, such as one or more elastic and/or elastomeric materials, rather than silicone; any suitable material may be used. In various embodiments, the sheath may have any shape, including that of a cone, pyramid, box, and any other suitable shape into which a user may insert his penis. In alternative embodiments, the sheath may be uniform in diameter along its length, may decrease in diameter from the proximal end to the distal end, may increase in diameter from the proximal end to the distal end, and may fluctuate in diameter along the middle portion. In different embodiments, the opening of the proximal end may have any shape, including that of a triangle, ellipse, oval, square, rectangle, and pentagon. In other embodiments, the second diameter may be between about 4 centimeters (“cm”) and about 16 cm, between about 6 cm and about 14 cm, and between about 8 cm and about 12 cm. In additional embodiments, the length of the sheath from the proximal end to the distal end may be between about 8 cm and about 20 cm, between about 10 cm and about 18 cm, and between about 12 cm and about 16 cm. In alternative embodiments, the first and second support columns may be omitted, there may be one, three, or more than three support columns, and the support columns may be comprised of any suitable material.

The personal massage apparatus also includes a shell **100** attached to and surrounding a significant portion of the main body **10**. The shell **100** includes a first end **102**, a second end **104**, a middle portion **106** extending from the first end **102** to the second end **104**, and an endpiece **108** defining a portion of the second end **104**. The shell **100** is substantially cylindrical in shape and, like the main body **10**, has an open first end **102** and a closed second end **104**. The shell **100** is disposed about and surrounds a significant portion of the main body **10**. The first end **102** of the shell **100** is substantially adjacent the first end **12** of the main body **10**, while the second end **104** and endpiece **108** of the shell **100** are substantially adjacent the second end **14** of the main body **10**. Accordingly, the middle portion **106** of the shell **100** is adjacent the middle portion **16** of the main body **10**. The first end **102** defines an opening (not illustrated in the FIGS.) that allows the main body **10** to be placed within the shell **100** during assembly. In the illustrated embodiment, however, the main body **10** is not immovable from the shell **100** once assembled. The opening of the shell **100** also defines a diameter which is slightly larger than that of the middle portion **16** of the main body **10**. The shell **100** is configured to fit snugly about the main body **10**. The shell **100** and main body **10** may be secured to one another via any suitable mechanism. A skilled artisan will be able to suitably configure the shell according to a particular example based on various considerations, including the size and shape of the main body, the desired length and thickness of the shell, and the desired weight of the personal massage apparatus. In

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various embodiments, the shell may have any shape, including that of a cone, pyramid, box, and another suitable shape, so long as it surrounds the main body. In different embodiments, the shell may only surround a portion of the main body, may comprise a portion of the same, and/or may extend past the first end of the main body. In additional embodiments, the length of the shell from the first end to the second end may be between about 10 cm and about 34 cm, between about 16 cm and about 30 cm, and between about 20 cm and about 26 cm. In yet other embodiments, the shell may be attached to the main body via an adhesive or via any physical mechanism(s), such as hooks or similar items designed to hold pieces of an apparatus together.

In the illustrated embodiment, the shell **100** is primarily comprised of aluminum; indeed, the majority of the middle portion **100** and exterior surface **110** thereof are comprised of aluminum. However, the endpiece **108** is comprised of silicone, which contacts a portion of the middle portion **106** that is adjacent the distal end **104**. In other embodiments, however, any portion of the shell, may be comprised of silicone, aluminum, or any other suitable material. A skilled artisan will be able to select a suitable material for the shell, including the endpiece, according to a particular example based on various considerations, including whether the endpiece has a use other than a structural use and the shape and size of the main body. In various embodiments, all or a portion of the shell may be comprised of various materials including plastic and/or one or more metals, and the endpiece may be comprised of any suitable material, including an elastic, metal, or plastic.

Optionally, and as is shown in the Illustrated embodiment, the main body **10** and shell **100** may cooperatively define a viewing panel **120**. As best illustrated in FIGS. **1** and **9**, the shell **100** defines a first window **122** extending along its middle portion **106** and the main body **10** defines a second window **98** extending along its middle portion **16**. The first and second windows **122**, **98** are adjacent and line up with one another so that a user may see various components (such as, for example, various sensor and motors, described below) that are disposed within the main body **10**. The viewing panel **120**, therefore, is cooperatively defined by the first and second windows **122**, **98**. In such an embodiment, the personal massage apparatus **2** includes a plastic cover **124** that is configured to snugly fit into the portion of personal massage apparatus **2** that defines the viewing panel **120**. The cover **124** forms a protective seal with the personal massage apparatus **2** and helps to prevent outside debris or other material from entering the interior of the device. The viewing panel **120** is rounded rectangular in shape and the cover **124** is not removable in the illustrated embodiment. A skilled artisan will be able to select suitable components for and suitably form the viewing panel according to a particular example based on various considerations, including whether a viewing panel is desired and the desired shape and size of the same. In other embodiments, the personal massage apparatus may define zero, two, three, four, or more than four viewing panels. In different embodiments, the viewing panel may have any shape, including shapes which are circular, rectangular, triangular, pentagonal, and elliptical. In alternative embodiments, the cover may be comprised of any suitable material and it may or may not be immovable. In various embodiments, the window may be defined by any portion of the personal massage apparatus.

The endpiece **108** forms a portion of the second end **104** of the shell **100** and is disposed substantially adjacent the second end **14** of the main body **10**. The endpiece **108** includes user controls on its lower surface **109** that comprise

first, second, and third **112**, **114**, **116** user controls that communicate with the controller **400** to operate the personal message apparatus **2**. The first user control **112** allows a user to power on the device and select a particular setting for the device (i.e., high frequency, low frequency, a particular pattern etc.). It also allows a user to power off the device. The second user control **114** allows a user to increase the speed and/or intensity of the vibrations produced by the first and/or second motors **200**, **250**. The third user control **116** allows a user to decrease the speed and/or intensity of the vibrations produced by the first and/or second motors **200**, **250**. The endpiece **108** also includes a charging port **118** that provides a user access to the battery **450**, as described in greater detail below. Optionally, the charging port **118** may include a cover **118a**, as illustrated, to prevent dust and debris from entering the charging port **118** itself. The cover **118a** is formed from a portion of the endpiece **108**. In various embodiments, zero, one, two, four, or more than four user controls may be included, and they may control any aspect of operation of the device. The charging port may be covered by a flap or other covering various embodiments, as well.

As described previously, the main body **10** houses various internal components. One such component is the controller **400**. The controller **400** is disposed adjacent the second end **14** of the main body **10**. It is most clearly visible in FIGS. **8** and **9**. The controller **400** can activate at least the first and second motors **200**, **250** and first **300**, second **330**, and third sensors in response to receiving a control signal and is supplied with power by the battery **450**, each of which is described in greater detail below. The controller **400**, for example, can change the production of stimulating waves and/or vibrations generated by the first and second motors **200**, **250** by altering the rate, strength, and/or duration of the output of the same. The controller **400** comprises a printed circuit board assembly in the illustrated embodiment; however, it may be comprised of any suitable device and/or material in other embodiments. Suitable examples include a printed circuit board and an electrical circuit board. The controller **400** includes a memory that has the capability to store multiple pre-set stimulation patterns. For example, the controller **400** may store stimulation patterns at various intensities (e.g., low, medium, high), stimulation pattern, that may comprise various bursts of stimulation, and/or stimulation patterns including periods of stimulation followed by stimulation-free periods. Moreover, the controller **400**, allows a user to choose stimulation patterns and their intensities through the first, second, and third **112**, **114**, **116** user controls, as described above. Optionally, the controller **400** may also be programmed by the user to store stimulation patterns that are particularly suitable to the user or of a user's creation. Additionally, in other embodiments, the controller may be controlled by an external source (not illustrated in the Figures), such as a remote control or a wireless signal emitted through one or more of a mobile phone, tablet, computer, or other similar devices. The external source may provide the controller stimulation patterns that are not stored on the memory of the controller.

In this embodiment, the controller **400** is operatively connected to an interface **410**, which allows it to communicate with a second device, such as a personal computer, tablet, mobile telephone, or other electronic device (not illustrated in the Figures). Using the interface **410**, the personal message apparatus **2** can send information to other devices so that the other device(s) may collect data pertaining to the use of the personal message apparatus **2**. Additionally, in some embodiments, the personal message appa-

ratus may receive control signals from another device that can indicate that the personal message apparatus should turn on or off, increase or decrease speed, switch to a different vibration pattern, and/or switch to a particular pattern desired by the user or recommended by the other device, among other instructions. The interface **410** can be a wired or wireless interface, such as a wireless transceiver that transmits control signals between the personal message apparatus and a second device. A skilled artisan will be able to select a suitable interface based on various considerations, including the device with which the personal message apparatus will communicate and the size and shape of the main body. In some embodiments, the interface is a radio-frequency ("RF") transceiver used to transmit and receive RF signals between the personal message apparatus and other devices. One example of an RF transceiver that could be used is a low power 2.4 GHz RF transceiver. In various embodiments, the personal message apparatus may also include antennas for transmitting and receiving signals between the personal message apparatus and other devices. In such examples, the interface can use BLUETOOTH®, Wi-Fi, infrared, laser light source, visible light source, acoustic energy, or one of a number of other methods to transmit information wirelessly between the personal message apparatus and another device.

In some embodiments, the personal message apparatus is connected to a network via the second device. In other embodiments, the personal message apparatus is directly connected to a wireless router or cellular phone network and may connect with the second device in any of said manners. Accordingly, the personal message apparatus can be controlled via personal computer, tablet, mobile phone, or other suitable electronic devices a user using the personal computer, tablet, phone, or other device in various embodiments. FIG. **12** illustrates one example of such a design.

FIG. **12** is a diagram illustrating component of a networked personal message apparatus, such as personal message apparatus **2**, in accordance with an example embodiment. In this embodiment, the personal, message apparatus **2** includes a controller, such as controller **400**, one or more motors, such as first and second motors **200**, **250**, one or more sensors, such as the first **300**, second **330**, and third sensors and an interface, such as interface **410**. As explained above, the personal message apparatus can be connected to a network via a personal computer, tablet, mobile telephone, or other electronic device or can be directly connected to a wireless router or cellular phone network. Thus, as stated, the personal message apparatus can be controlled by, transmit data to, and/or receive data from the personal computer, tablet, mobile telephone, or other electronic device via the aforementioned mechanisms. A skilled artisan will be able to determine how to suitably connect the personal message apparatus with other devices based on various considerations, including the desirability of doing so and the devices to which connection would be beneficial. In some embodiments, the personal message apparatus may not include an interface and, thus, may not communicate with other devices. In different embodiments, the personal message apparatus may only transmit data to other devices; it may not receive any data and cannot be controlled via said other devices in this embodiment.

The main body **10** also houses the battery **450**. The battery **450** is disposed adjacent the second end **14** of the main body **10** and is disposed closer to the endpiece **108** than is the distal end **34** of the sheath **30**. The battery **450** is operatively connected, to the charging port **118** disposed on the endpiece **108**. The battery **450** provides power to and is electrically

coupled to at least the first and second motors **200**, **250**, the first **300**, second **330**, and third, sensors and the controller **400**. The battery **450** comprises a lithium-ion battery in the illustrated embodiment and is rechargeable. The battery **450** is charged through the charging port **118**, which is disposed 5 beneath an optional cover **118a** in this embodiment. A skilled artisan will be able to select a suitable battery and place it at a suitable position within the main body according to a particular example based on various considerations, including the desired strength of the motors and the size and shape of the main body. In other embodiments, the battery 10 may comprise a lithium battery, a NiMH battery, or some other type of rechargeable battery. In an alternative embodiment, the battery may not be rechargeable and, instead, may be replaceable. In a different embodiment, the personal massage apparatus may comprise more than one battery.

The battery **450** has the ability to hold a certain amount of energy to use upon the detection of a certain condition (hereinafter, “reserve power”). More specifically, the battery **450** is configured to maintain a certain amount of reserve 20 power that it may distribute to the first motor **200** after the first sensor **300** detects a decrease in the rate of rotation of the drive shaft **402** in order to keep the motor **400** functioning during such periods when a load is placed on the personal massage apparatus **2**. A skilled artisan will be able to select a suitable amount of energy comprising reserve 25 power according to a particular example based on various considerations, including the desired strength of the motor and the size and shape of the housing. In one embodiment, the battery may store reserve power comprising between, about 1% and about 50% of the battery’s total storage capacity. In another embodiment, the battery may store reserve power comprising between about 10% and about 35% of the battery’s total storage capacity. In yet another embodiment, the battery may store reserve power comprising 30 between about 15% and about 25% of the battery’s total storage capacity. In a different embodiment, the battery does not store reserve power.

The first motor **200** is best illustrated in FIG. **8**. The first motor **200** is disposed within the cavity **20** of the main body **10** and is disposed substantially adjacent the second end **14** of the main body **10**. The first motor **200** is, therefore, also substantially adjacent the distal end **34** of the sheath **30** such that, when in operation, the first motor **200** provides stimulation to the tip, head, and/or end of the penis of a user. The 45 first motor **200** includes a housing **202** that holds the first motor **200** in place within the main body **10**, as well as a earner **204** and rod **206** that aid in production and transmission of vibrations and pulsations. The rod **206** extends toward the distal end **34** of the sheath **30** and contacts the outer surface **38** of the same to provide stimulation to the penis disposed within the chamber **46**. A magnetic unit (not illustrated in the Figures) is attached to the rod **206**. Accordingly, when the first motor **200** is in operation, the movement of the rod **206** produces stimulating waves that are transmitted into the 50 chamber **46**. In combination or sequence, the stimulating waves comprise stimulation patterns that are transmitted to the penis disposed within the sheath **30**.

The first motor **200** operates such that the rod **206** rotates in place about its longitudinal axis (not illustrated in the 60 Figures), which extends along the length of the rod **206** through its center; these rotations generate stimulating waves, which comprise the various patterns. Based on the particular pattern of rotations of the rod **206**, the stimulation patterns may be constant or varying; they may also comprise 65 bursts or vary in intensity and/or duration. The controller **400** transmits a user’s selection of stimulation patterns to the

first motor **200**, which then implements such selections. A skilled artisan will be able to select a suitable first motor according to a particular example based on various considerations, including the placement of the first motor relative to the portion of the device configured to emit stimulation and the types of stimulation patterns that the device is designed to emit. In some embodiments, the first motor may comprise an electric motor, in other embodiments, the rod may rotate at any rate, including between about 1,000 5 revolutions per minute (“rpm”) and about 5,000 rpm, between about 2,000 rpm and about 4,000 rpm, and between about 2,500 and about 3,500 rpm. In other embodiments, the magnetic unit may be attached to the rod through any mechanical means or through an adhesive; it may also be 10 disposed within the rod. In various embodiments, the magnetic unit may comprise one, two, three, or more than three individual magnets. In other embodiments, the first motor may comprise an oscillation motor.

Depending on the particular types of stimulating waves that are emitted, the first motor **200** may produce a vacuum (or partial vacuum) within the chamber **46**, which produces a suction-like effect on the user when a part of the user’s penis is partially or fully disposed within the chamber **46**. A vacuum is especially likely to occur when the personal 15 massage apparatus **2** is in use and the user’s penis is thick and/or large enough to create a seal at the one or both of the openings **18**, **40** of the proximal end **32** of the sheath **30** and/or first end **12** of the main body **10**. In the event a seal is not created, the user will still receive a suction-like effect on his penis. The inner surface **36** of the sheath **30** is designed such that it can act as a diaphragm and, in some instances, similar to a speaker configured to emit audio; thus, it may be disposed slightly closer to the penis when the first motor **200** is in use as compared to when it is not in 20 operation. The first motor **200** may be configured to produce other stimulating waves and stimulation patterns, as well. In addition, the personal massage apparatus **2** may be configured such that when the waves produced by the first motor **200** are transmitted toward the portion of the user disposed within the chamber **46**, the waves and/or vibrations may reflect after contacting the user, contact the inner surface **36** of the sheath **30** again, and then reverberate towards the user. This would provide added stimulation to a user that would be unpredictable, as the reverberating waves would not 25 behave in a consistent manner. A skilled artisan will be able to select a suitable first motor according to a particular example based on various considerations, including the placement of the first motor relative to the sheath and the types of stimulation patterns that the apparatus is designed to emit. In other embodiments, the first motor may only produce stimulating waves that produce a suction-like effect within main body. In different embodiments, the first motor may only produce stimulating waves that produce expulsion of air from the chamber of the main body. In an alternative 30 embodiment, the first motor may be configured to vibrate and/or pulsate without suction or the expulsion of air. In various embodiments, the first motor may produce suitable vibrations and/or pulsations having frequencies between about 10 Hertz (Hz) and about 150 Hz, between about 40 Hz and about 120 Hz; and about 70 Hz and about 90 Hz. In additional embodiments, the first motor may pulsate between about 500 and about 5,000 times per minute, between about 5,500 and about 4,000 times per minute, and between about 3,200 and about 3,800 times per minute. In 35 other embodiments, the apparatus does not produce a vacuum and instead merely stimulates a user via the production of waves, pulsations, and/or vibrations.

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The second sensor 330 is disposed within the main body 10 and adjacent the first motor 200 on the interior surface of the middle portion 16. FIG. 8 most clearly illustrates the second sensor 330. The second sensor 330 is configured to detect how frequently the rod 206 rotates in a given period of time by monitoring the number of times the magnetic unit moves past the second sensor 330. Any suitable second sensor may be used in various embodiments, so long as the sensor can detect the position of the magnetic unit over time and transmit such information to the controller. A Hall Effect Sensor (sometimes referred to as a Hall Sensor) is a suitable example of such a second sensor.

When a load, such as a user pressing the first end 12 of the main body 10 to his body with a strength that passes a certain threshold, is placed upon the personal massage apparatus, the first motor 200 slows and the rod 206 (and, thus, the magnetic unit) rotates less quickly. The second sensor 330 detects the lower rate of rotation of the magnetic unit in a given time period, indicating that the number of rotations of the rod 206 in a given time period has decreased. Upon sensing the changes to the rate of the rotation of the rod 206, the second sensor 330 alerts the controller 400 of the reduced rate of rotation of the rod 206; the controller 400 then instructs the first motor 200 to increase production and the battery 450 to provide the first motor 200 additional energy to do so (as described above). Alternatively, the second sensor 330 can directly instruct the first motor 200 to increase output in response to the load exerted on the first end 12 by the user that has slowed the rod 206.

Upon such an instruction from the second sensor 330 or the controller 400, the first motor 200 will use reserve energy that is stored by the battery 450 to maintain the output of the first motor 200. The battery's 450 capability of holding such reserve power is described above. This allows the user to continue to receive, for a period of time, the same stimulation pattern that is generated when the second sensor 330 does not sense any change in the rate of rotation of the rod 206 due to contact with a user. Therefore, the rod 206 maintains the ability to rotate at the same rate as when there is no load on the personal massage apparatus 2 based on the second sensor's 330 output for a period of time. A skilled artisan will be able to determine what type of second sensor to use and where to place the second sensor according to a particular example based on various considerations, including the size and shape of the first motor and the type of second sensor used. In different embodiments, the second sensor may be disposed at any suitable portion within the main body and may be configured to measure the rate of rotation of the rod in any suitable manner. In other embodiments, the second sensor may be adjacent to the second motor. In various embodiments, the second sensor may have any particular sensitivity level (i.e., extremely, moderately, or minimally responsive to change in rod rotation) and may act on a delay prior to instructing the motor to increase output.

The second sensor 330 may also be configured to measure the thickness and/or circumference of the penis of a user and transmit the same to a second device. By measuring how, when, and if a vacuum and/or seal is generated during use, the second sensor 330 can determine whether the user has a penis having a circumference and/or thickness that is small, medium, or large, as compared with a database relating to penis circumference and/or thickness that is stored on a software application on a second device. In some embodiments, the second sensor may be equipped to measure the actual circumference or width of the penis, rather than provide a general measurement of size. A skilled artisan will

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be able to select how to suitably configure a second sensor to measure penis thickness and circumference according to a particular example, including the sensitivity of the second sensor and the material comprising the sheath. In some embodiments, the penis thickness and/or circumference may include additional categories, including extra small, extra-large, and any other suitable categories.

The second motor 250 is disposed within the main body 10 and adjacent the middle portion 35 of the sheath 30. More specifically, the second motor 250 is disposed adjacent the second support column 49 and is disposed nearer to the proximal end 32 of the sheath than is the first motor 200. The second motor 250 includes a housing 252 configured to maintain the second motor 250 at a stable position within the cavity 20 of the main body 10. When in operation, the second motor 250 provides stimulation to the shaft of the penis of a user. The second motor 250 is an oscillating motor in this embodiment and may be used in conjunction with or separately from the first motor 200. In the illustrated embodiment, the first and second motors 200, 250 may vibrate, pulsate, or otherwise produce stimulations that act cooperatively to increase stimulation to the user (such as by vibrating or pulsating in synchronization). They may also negatively impact total stimulation produced when they are operated together by vibrating or pulsating at different frequencies or wavelengths from one another. The second motor 250 can produce one or more of stimulating waves, vibrations, and pulsations and may vibrate constantly, pulse on a particular pattern, pulse randomly, and otherwise provide stimulation in a variety of manners. Any suitable motor may comprise the second motor. A skilled artisan will be able to select a suitable second motor according to a particular example based on various considerations, including the placement of the second motor relative to the sheath, the placement of the first motor, and the types of stimulation patterns that the apparatus is designed to produce. In other embodiments, the second motor may produce stimulating waves that produce a suction-like effect within main body or stimulating waves that "push" air from within the chamber through and out of its opening. In various embodiments, the second motor may produce suitable vibrations and/or pulsations having frequencies between about 10 Hz and about 300 Hz, between about 50 Hz and about 150 Hz, and about 70 Hz, and about 90 Hz. In some embodiments, the second motor operates at a higher frequency than does the first motor; in other embodiments, the first motor operates at a higher frequency than does the second motor. In additional embodiments, the second motor may pulsate between about 500 and about 15,000 times per minute, between about 3,000 and about 12,000 times per minute, and between about 9,000 and about 11,000 times per minute.

The main body 10 also houses the first sensor 300. The first sensor 300 comprises a capacitive sensor and includes a set of nodes 302, including first, second, third, fourth, and fifth nodes 302a, 302b, 302c, 302d, 302e, respectively (collectively referred to as "the nodes 302"). The nodes 302 are disposed on a sensor unit 304, which also comprises a portion of the first sensor 300. The first sensor 300 is attached to the outer surface 38 of the sheath 30 and extends along the sheath 30. More specifically, each of the nodes 302 of the first sensor 300 are spaced from one another along the length of the middle portion 35 of the sheath 30. The first node 302a is disposed more closely to the proximal end 32 of the sheath 30 than is any other node 302, while the fifth node 302e is disposed more closely to the distal end 34 than is any other node 302. The first sensor 300 is disposed closer to the proximal end 32 of sheath than are either of the first

support column **48** or second support column **49**. This placement of the nodes **302** aids in collecting data related to the length and shape of the penis of a user. It also allows the first sensor **300** to measure movement of the penis while it is within the sheath **30**, as described below. Further, the sensor **300** is disposed substantially opposite the second motor **250** on the outer surface **38**. A skilled artisan will be able to select a suitable first sensor according to a particular example based on various considerations, including, the number of desired nodes and what the skilled artisan wishes to measure. In another example, the sensor may include zero, one, two, three, four, six, seven, eight, or more than eight nodes. In a different example, the sensor may extend around the exterior of the sheath to form a ring, may be placed adjacent the tip of the sheath, may extend to the proximal end of the sheath, and may otherwise be placed as a skilled artisan sees fit.

The first sensor **360** is also configured such that when it (and, by extension, the sheath **30**) comes in contact with or close proximity to the skin of a user, the first sensor **300** detects a change in capacitance due to said contact or close proximity and communicates said changes to the controller **400**. The controller **400** operates one or both of the first and second motors **200**, **250** in response to said changes. In conjunction, the first sensor **300** and the controller **400** are able to discriminate between an object with high water content (such as a human body) and other objects. Consequently, the first sensor **300** aids in preserving the life of the battery **450**, as it will not operate without sensing close proximity to or contact with an object with high water content. The first sensor **300** may be comprised of any suitable material, including copper or indium tin oxide.

To sense activation of the first sensor **300**, the controller **400** includes a relaxation oscillator, which generates a wave whose frequency changes along with the capacitance of the first sensor **300**. More specifically, the frequency increases as the capacitance of the system increases and decreases as the capacitance of the system decreases. A counter measures the number of oscillations that occur during a fixed time period; when the number of oscillations during the time period falls below a set level indicating the presence of a body, the controller **400** registers the presence of a body. A body may sufficiently alter the capacitance of the first sensor **300** to reduce the number of oscillations below the level indicating a body even when the massager is not in actual contact with the body. Accordingly, the first sensor **300** can detect such changes in capacitance through the sheath **30**; as such, it will still function even though it is disposed on the outer surface **38** of the sheath **30** and may not directly contact the skin of the user. The actual distance from the main body **10** that registers as the user's presence may vary. Regardless, proximity to or contact with a user is necessary for the personal message apparatus **2** to operate. A skilled artisan will be able to select a suitable first sensor according to a particular example based on various considerations, including the types and strengths of first and/or second motors and the desired sensitivity of the first sensor. In various embodiments, the first sensor may be comprised of any suitable material. In different embodiments, the first sensor may be configured such that a user must be in direct contact with the sheath and/or main body in order for the first and/or second motor to operate. In other embodiments, the distance from the sensor, sheath, and/or main body from which the first sensor registers the presence of the body of a user may include a millimeter, a centimeter, an inch, or more than an inch.

The first sensor **300** is configured to collect various measurements relating to a user's use of the personal message apparatus **2** and transmit the same to the controller **400**, which then can be transmitted to a second device, such as a mobile phone, as described above. For example, the first sensor can **300** can collect data related to the length of the penis of the user by measuring which of the nodes **302** of the first sensor **300** are most closely adjacent the tip of the penis of a user. As described below, the tip of the penis extending to a particular node **302** will correspond with a particular penis length. The sensor **300** is sufficiently capable of measuring capacitance such that it will be able to differentiate when the tip of the penis extends, for example, only to the third node **302c** but does not extend to the fourth node **302d**.

The first sensor **300** also measures the frequency of penile insertions or motions toward and away from the distal end **14** (i.e., thrusts) during a session. In one example, the frequency may be measured by the total number of times the penis is adjacent the first node **302a**, but not any other nodes **302**, over a period of time; this information would be sent to second device which would calculate the number of insertions, during a session. In another example, the number of times the tip of penis is adjacent the fourth node **302d** could be measured (assuming the length of the penis does not extend to the fourth node **302d** while not in motion). This information would be sent to a second device to calculate the repetitions of a particular motion of the personal massager towards and away from the user during a session. The first sensor may also record data of a second session for transmission to a second device for comparison with the data recorded in a first session. The first sensor **300** can also measure the total duration of a session.

Any data related to the length of the penis, frequency of insertions and/or motions, and other similar movements may be measured by the first sensor in other embodiments, as well. A skilled artisan will be able to select data for the first sensor to measure according to a particular example based on various considerations, including the type and sensitivity of the first sensor and the intended use of the apparatus.

The personal message apparatus **2** also includes a third sensor (not illustrated in the Figures) configured to detect orientation and movement of the personal message apparatus **2**. The third sensor comprises a portion of the controller **400** and comprises a gyroscope sensor (and accelerometer) that is intended to measure orientation and movement of the personal message apparatus on three axes: the x-axis (i.e., towards and away from the body of the user), the y-axis (i.e., towards the user's left side and right side, and the z-axis (towards the user's head and his feet). In simpler terms, the third sensor can detect orientation positions that include left, right, up, down, back, and front. Accordingly, the third sensor can detect the orientation and movement of the personal message apparatus **2** relative to the user and transmit said information to the controller **400** and/or second device, such as a mobile phone. The third sensor can measure both the speed and direction of the personal message apparatus **2** over time. In various embodiments, any gyroscope sensor and/or accelerometer may comprise the third sensor. For example, a gyroscope sensor such as a microelectromechanical systems ("MEMS") gyroscope may be used; MEMS gyroscopes are commonly used in mobile phones and other electronic devices. Other vibrating structure gyroscopes can be used, as well.

Data that the third sensor may measure, collect, and/or transmit includes the rate and direction of movement of the personal message apparatus **2**. By measuring the position of

the third sensor over time, the rate of movement of the personal message apparatus **2**, and thus the user's hand, can be calculated. Most commonly, the third sensor will measure the movement of the personal message apparatus **2** towards and away from a user's body along the length of the penis, though it can also measure other patterns of movement.

The third sensor may also measure, collect, and transmit data relating to the direction in which the personal message apparatus **2** moves and/or is oriented. Such data may include the angles at which the personal message apparatus moves relative to the body, the various changes in direction of the personal message apparatus **2** along the three aforementioned axes that a user initiates, the various orientations of the personal message apparatus **2** during a session, and the patterns that a user prefers along such axes. In some embodiments, the third sensor will be able to detect whether a user is using his right or left hand, depending on the changes in speed and/or direction of the personal message apparatus detected by the third sensor.

In various other embodiments, one or more of the first, second, and/or third sensors may measure, collect, and/or transmit additional data to the controller and/or a second device. A skilled artisan will be able to select suitable additional types of data to be collected according to a particular example based on various considerations, including the size and shape of the personal message apparatus and the particular first, second, and third sensors used. In one embodiment, a sensor may detect audio and determine how much and what noises a user makes while using the device. In another embodiment, a sensor may be configured to detect pulsations of the penis. In a different embodiment, a sensor may communicate with a smartwatch to track a user's pulse while he uses the personal message apparatus. In other embodiments, the third sensor may only detect movement on one or two axes, rather than three. In a different embodiment, the third sensor may only comprise an accelerometer. In an alternative embodiment, one or both of the first and second motors may increase or decrease in output based on one or more orientations sensed by the third sensor. The third sensor may detect orientation on various planes, as well.

Optionally, and as is illustrated in FIGS. **8** and **9**, the personal message apparatus **2** may include one or more light sources **490**, **492**. The first light source **490** is disposed within the main body **30** along the inner surface of the middle portion **16**. The first light source **490** comprises an LED light configured to illuminate the cavity **20** when the personal message apparatus **2** is in use. More specifically, the first light source **490** helps a user see into the main body **10** through the viewing panel **120** in order to see the components stored within the same. The first light source **490** may emit light of any color, including one or more of blue, green, orange, red, purple, yellow, white, or any other suitable light color.

The second light source **492** is disposed adjacent the endpiece **108** of the shell **100**. The second light source **492** is configured to illuminate the distal end **104** and endpiece **108** such that a colored ring is found around the endpiece **108** when the personal message apparatus **2** is in use. Optionally, the second light source **492** may be positioned such that it illuminates the first, second, and third **112**, **114**, **116** user controls when the personal message apparatus **2** is in use. Such an alignment would aid a user in viewing the first, second, and third **112**, **114**, **116** user controls in the dark. The second light source **492** may emit light of any color, including one or more of blue, green, orange, red, purple, yellow, white, or any other suitable light color. A skilled artisan will be able to select suitable first and second

light sources according to a particular example based on various considerations, including the size and shape of the personal message apparatus and whether a viewing panel is present. In other embodiments, other light source sources may be used in place of LED light sources. In a different embodiment, zero, one, three, or more than three light sources may be included.

As described above, the data collected by the first, second, and third sensors **300**, **330** may be transmitted to a second device (not illustrated in the Figures) via the controller **400**. As was also described above, the data, may include data related to one or more of: the user's penis length, width, or circumference; the frequency of insertions, motions or thrusts by the user over a period of time; the duration of one or more sessions; the user's pulse; the user's speed and direction of use of the personal message apparatus on three axes; the position of the personal message apparatus over time; the rhythms and/or patterns of use; and/or sounds produced by the user during use. After transmission of this data to a second device, such as a mobile phone having a software application configured to store and analyze this data, the second device can log both data from individual, sessions and average data generated across multiple sessions. The data may also include maximum data for a particular measurement (i.e., longest duration, date on which, the penis had the most circumference, etc.). The software may also compare the lengths, circumferences, and widths of a user's penis to other users' lengths circumferences and widths or a data set containing average measurements for the same. This data can then be displayed to the user on a display of the second device; an example of such a display is a screen of a mobile phone.

Additionally, upon receipt of the data, the software application can analyze the data and provide suggestions, tips, and other advice to the user to improve the user's sexual performance. Such suggestions, tips, and advice may include, but is not limited to: preferable angles, durations, speeds, positioning, rhythm, thrusts, and motions that a user may practice. These will both improve the pleasure experienced by the user while using the personal message apparatus and aid a user when he is having sexual intercourse with another person. More specifically, the software application will provide suggestions, tips, and advice based on satisfactory sexual performance techniques. For example, the software application may provide advice regarding how long a session should last, the motions and/or insertion patterns and rhythms preferred by various sexual partners (these could differ based on whether a preferred, partner is a man or woman), and various the speed and direction of movement that may be pleasurable to others.

Optionally, the personal message apparatus may be controlled remotely by the mobile phone via the software application. In one such example, the personal message apparatus may control, one or both of the motors, dictate what is measured by the sensors, control the emission of light by the light sources, and control a particular pattern of stimulation emitted, by the personal message apparatus. Remote control would be particularly advantageous if the user is physically separate from his preferred partner.

The software application may be open source in some embodiments, as well. That is, users and others that have the capability of programming the software application may add their own code to the software application. Such code may one or both of the motors, dictate what is measured by the sensors, control the emission, of light by the light sources, and control a particular pattern of stimulation emitted by the personal message apparatus. A skilled artisan will be able to

suitably configure a second device having a software application according to a particular example based on various considerations, including the intended user of the apparatus and what data is to be collected. In some embodiments, the software may only display one or more of the aforementioned data sets. In different embodiments, the software may be open or closed source.

The personal massage apparatus **2** can be used in various ways. The following is one such example.

In use, a user will insert his penis into the sheath **30** such that the tip of his penis is closer to the distal end **34** than the proximal end **32**. Next, the user will activate the software application on a second device, such as a mobile phone, and ensure that the software application is ready to receive and analyze data from the personal massage apparatus **2**. A user will then activate the personal massage apparatus **2** via the first user control **112**. Activation will power on the personal massage apparatus **2**, which will include operation of the first and second motors **200**, **250** and, optionally, illumination of the personal massage apparatus **2** via the first and second light sources **490**, **492**. A user then, optionally, may increase or decrease the intensity of the vibrations and/or pulsations of the personal massage apparatus **2** via the second and third user controls **114**, **116**. The intensity may be adjusted at any point during use. The user will then thrust, move, remove and reinsert, position, and otherwise use the apparatus as described above. Most commonly, a user will move the personal massage apparatus **2** along the length of his penis such that the penis is stimulated by the first and second motors **200**, **250** and the inner surface **36** of the sheath **30**. While the user is using the personal massage apparatus **2**, the first **300**, second **330**, and third sensors will collect the data described above and transmit the same to a second device via the controller **400** and/or interlace **410**. Eventually, the user will stop using the personal massage apparatus **2**; most commonly, a user will cease using the same after he has ejaculated and/or climaxed, whether within the sheath **30** and/or main body **10** or outside of the same. A user, then, will access the software application on his second device to review the data collected, by the personal massage apparatus **2** during the session. He will then be able to access the various suggestions, tips, and advice as to how to improve his sexual performance and increase sexual pleasure to both himself and others, whether or not he is using the personal massage apparatus **2**.

FIGS. **13**, **14**, **15**, **16**, **17**, **18**, **19**, **20**, **21**, **22**, and **23** illustrate another example personal massage apparatus **4** configured to be used by men and/or various components thereof. The personal massage apparatus **4** is similar to the personal massage apparatus shown in FIGS. **1** through **11**, except as described below. Thus, the personal massage apparatus **4** comprises a main body **500**, a shell **600**, a first motor **700**, a second motor **750**, a first sensor **800**, a second sensor **830**, a third sensor (not illustrated in the FIGS.), a controller **900**, a battery **950**, and various other components that will be described in greater detail below.

The main body **500** of the personal massage apparatus **4** includes two pads **550**, **552** disposed within the main body **500** in the illustrated embodiment. The pads **550**, **552** are comprised of silicone and are attached to the interior surface **506**. The pads **550**, **552** are disposed substantially adjacent the first end **502** of the main body **500** and are configured to reduce the noise generated by the second motor **750**, which is disposed within and attached to a motor housing **752**. The motor housing **752** and second motor **750** are disposed nearer to the first end **502** of the personal massage apparatus **4** than to its second end **504**. The second motor **750** and the

motor housing **750** may be secured in position within the main body **500** via any suitable mechanism. A skilled artisan will be able to select suitable pads according to a particular example based on various considerations, including the shape and size of the main body and the amount of cushion which the pads are configured to provide. In various embodiments, the pads may be attached to the main body via any mechanism, including a mechanical attachment and/or an adhesive. They may also be integrally formed with the main body. Furthermore, in other embodiments the personal massage apparatus may include zero, one, three, or more than three pads. The pads also may be comprised of any suitable material in different embodiments.

The first sensor **800** of personal massage apparatus **4** has eight nodes (not illustrated in the FIGS.) in this embodiment. These provide the first sensor **800** the ability to collect data in greater detail than would a sensor with fewer nodes.

As illustrated in FIG. **13**, for example, the first end **502** does not include ridges in this embodiment. Instead, the first end **502** is substantially smooth adjacent the shell **600**.

In an alternative personal massage apparatus **4'**, illustrated in FIG. **24**, the main body **500'** and the shell **600'** do not cooperatively define a viewing panel. Indeed, the main body **500'** does not define a second window and the shell **600'** does not define a first window or include a cover. Instead, each of the main body **500'** and shell **600'** are comprised of their respective materials about their exterior surfaces. A user of the alternative personal massage apparatus **4'** is not able to see into the interior of the shell **600'** and/or main body **500'**. In a different embodiment, personal massage apparatus **2** may not define a viewing panel and/or first or second windows.

FIG. **25** is a flowchart representation of an example method **1000** of using a personal massage apparatus.

An initial step **1002** comprises inserting a user's penis into the sheath of a main body of a personal massage apparatus, such as the sheath **30** of the main body **10** of personal massage apparatus **2**. In various other methods, any suitable personal massage apparatus may be selected, including personal massage apparatus **4** or personal massage apparatus **4'**.

Another step **1004** comprises activating a software application stored on a second device, such as a mobile phone, that is configured to receive data from the personal massage apparatus **2**. This step **1004** is frequently performed before step **1002**.

Optionally, another step **1006** comprises adjusting the intensity of the pulsations and/or vibrations generated by one or more motors, such as the first and second motors **200**, **250**, of the personal massage apparatus **2**. The intensity may be increased or decreased.

Another step **1008** comprises the user using the personal massage apparatus **2** to stimulate himself. The user may move and position the personal massage apparatus **2** as described above or in any other manner in order to provide stimulation to himself. Data relating to such use will be collected via first, second, and third sensors, such as first sensor **300**, second sensor **330**, and third sensor (described above), of the personal massage apparatus **2** during this step.

Another step **1010** comprises ceasing use of the personal massage apparatus **2**. Most commonly, this will occur after the user has ejaculated and/or climaxed.

Another step **1012** comprises the user reviewing data collected by one or more sensors, such as the data collected by one or more of first **300**, second **330**, and/or third sensors on a display of the second device.

Another step **1014** comprises the user-reviewing suggestions, tips, and/or advice (such as the suggestion, tips, and advice as described above) regarding his sexual performance on the display of the second device.

Optionally, another step **1016** comprises using the personal message apparatus **2** again and incorporating the suggestions, tips, and advice described in step **514**.

It is noted that the method **1000** may be completed in the order illustrated and described. However, the steps may also be completed in any order.

In all examples, a personal message apparatus may be formed of any suitable material, including presently known and later-developed materials for use in personal message apparatuses. A skilled artisan will be able to select an appropriate material or materials for a personal message apparatus based on various considerations, including, but not limited to, the desired size and shape of the apparatus and its components and the type of stimulation to be produced. Examples of suitable materials that may comprise one or more components include, but are not limited to, silicone, metal, and/or plastic.

Those with ordinary skill in the art will appreciate that various modifications and alternative for the described and illustrated embodiments can be developed in light source of the overall teachings of the disclosure. Accordingly, the particular arrangements disclosed are intended to be illustrative only and not limiting as to the scope of the invention, which is to be given the full breadth of the appended claims and all equivalents thereof.

What is claimed is:

1. A personal message apparatus configured to stimulate a penis of a user, comprising; an elongate, tubular main body having an open first end, a closed second end, a middle portion extending from the first end to the second end, and an elongate, flexible sheath disposed within the main body having a proximal end and a distal end, the sheath defining a chamber extending from an opening defined by the proximal end of the sheath to the distal end of the sheath, the sheath being attached to the first end of the main body and comprised of silicone, the sheath configured to receive said penis of said user within the chamber; an elongate, tubular shell attached to and surrounding substantially all of the middle portion of the main body, the shell being comprised of metal; a first motor disposed within the main body and adjacent to the sheath, the first motor configured to drive a rod and a cam and being configured to produce vibrations in order to stimulate said penis, the first motor which is encased in a first housing, said first housing contacting an exterior of the distal end of the sheath via the rod and the cam connected to the first motor and being configured to provide stimulation to a head of said penis; a second motor disposed closer to the proximal end of the sheath than is the first motor, the second motor comprising an oscillating motor, the second motor which is encased in a second housing, said second housing directly contacting an exterior closer to the proximal end of the sheath and being configured to provide stimulation to a shaft of said penis; a controller disposed within the main body and configured to operate the first motor and the second motor; and a first sensor disposed within the main body and adjacent an exterior surface of the sheath, the first sensor configured to sense the proximity of said user to the first sensor.

2. The personal message apparatus of claim **1**, wherein the first sensor comprises a capacitive sensor.

3. The personal message apparatus of claim **2**, wherein the motor will not operate unless the first sensor detects the presence of said user adjacent to the main body.

4. The personal Message apparatus of claim **3**, wherein the first sensor collects data related to said user's performance while using the personal message apparatus.

5. The personal message apparatus of claim **4**, wherein the data comprises frequency and duration of use and measurements relating to the length of said penis.

6. The personal message apparatus of claim **1**, further comprising a second sensor disposed within the main body and adjacent to the motor, the second sensor configured to detect output produced by the motor.

7. The personal message apparatus of claim **1**, wherein the shell defines a window configured to allow said user to see the main body through the window.

8. The personal message apparatus of claim **7**, further comprising a covering configured to be placed within the window, the covering comprised of plastic.

9. The personal message apparatus of claim **1**, further comprising a user control configured to provide instruction to the controller.

10. The personal message apparatus of claim **1**, wherein an interior surface or the sheath defines grooves extending along an inner surface of the sheath.

11. A personal message apparatus configured to stimulate a penis of a user, comprising; an elongate, tubular main body having an open first end, a closed second end, a middle portion extending from the first end to the second end, and an elongate, flexible sheath disposed within the main body having a proximal end and a distal end, the sheath defining a chamber extending from an opening defined by the proximal end of the sheath to the distal end of the sheath, the sheath being attached to the first end of the main body and comprised of silicone, the sheath configured to receive said penis of said user within the chamber; an elongate, tubular shell attached to and surrounding substantially all of the middle portion of the main body, the shell being comprised of metal; a first motor disposed within the main body and adjacent to the sheath, the first motor configured to drive a rod and a cam and being configured to produce vibrations in order to stimulate said penis, the first motor which is encased in a first housing, said first housing contacting an exterior of the distal end of the sheath via the rod and the cam connected to the first motor and being configured to provide stimulation to a head of said penis; a second motor disposed closer to the proximal end of the sheath than is the first motor, the second motor comprising an oscillating motor, the second motor which is encased in a second housing, said second housing directly contacting an exterior closer to the proximal end of the sheath and being configured to provide stimulation to a shaft of said penis; a controller disposed within the main body and configured to operate the first motor and the second motor; a first support column and a second support column disposed within the main body, the first support column and the second support column each contacting an exterior of the sheath and the shell; a first sensor disposed within the main body and adjacent an exterior surface of the sheath; the first sensor configured to sense the proximity of said user to the first sensor; and a second sensor disposed within the main body and adjacent to the first motor, the second sensor configured to detect output produced by the first motor.

12. The personal message apparatus of claim **11**, wherein the first sensor collects data related to said user's performance while using the personal message apparatus.

13. The personal message apparatus of claim **12**, wherein the data comprises frequency and duration of use and measurements relating to the length of said penis; and

wherein the controller transmits the data to a mobile phone having a software application configured to receive and analyze the data.

14. The personal message apparatus of claim 13, wherein the mobile phone displays the data to said user on a mobile phone display. 5

15. The personal message apparatus of claim 14, wherein the mobile phone generates suggestions on how said user may improve sexual performance based on the data.

16. The personal message apparatus of claim 15, wherein the suggestions include tips on how said user may increase the duration of a sexual encounter. 10

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